



THE
BRITISH JOURNAL
OF
CHILDREN'S DISEASES.

VOL. VII.

FEBRUARY, 1910.

No. 74.

Original Articles.

A CASE OF CYCLIC OR RECURRENT VOMITING
ASSOCIATED WITH HYPERTROPHIC STENOSIS OF
THE PYLORUS.

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THE patient was a boy, C. G—, aged 4 years and 9 months. He was admitted into St. Thomas's Hospital on July the 24th, 1909, and died on August the 22nd.

From birth he had been liable every few months to attacks of vomiting associated with epigastric pain. These would come on suddenly and would last for about twenty-four hours, the vomiting being repeated several times in the day. He was much exhausted by the attacks and would be kept in bed for a few days after one. The mother described him as a nervous child. The bowels were rather constipated and the stools frequently contained mucus. At the age of 2½ years he had measles with bronchitis. The mother has one other child, a girl, aged 9 years, who is in good health.

HISTORY OF FINAL ILLNESS.

*On the evening of July the 22nd the child complained of epigastric pain and began to vomit (six or eight times daily). The

colour of the vomited material was yellow until July the 24th, when it became coffee-coloured. The bowels had been regular up to July the 21st, but from that date constipation was present. They were opened by enema on July the 24th.

On admission to hospital on July the 24th the child was emaciated, pale, and in a state of collapse, with sunken eyes and feeble pulse. He frequently vomited small quantities of coffee-ground material. His breath smelt strongly of acetone. The abdomen was retracted, and occasional peristalsis from left to right was observed in the epigastrium. The liver dulness commenced at the sixth rib in the nipple line and extended to the costal margin; its edge could not be felt. The spleen could not be felt.

The thoracic viscera showed no signs of disease. The knee-jerks were normal; plantar reflexes flexor. Temperature 101.4° F.

Urine.—Specific gravity 1039; slightly alkaline with a large deposit of phosphates. It contained no albumin, sugar, bile, pus, or blood.

The boy's illness in the hospital can be divided into three stages:

- (1) The full development of the attack for which he was admitted.
- (2) A stage of remission.
- (3) Recurrence of symptoms with fatal result.

The first stage lasted from July the 24th to July the 29th.

On admission the boy was so collapsed that subcutaneous infusion of one pint of normal saline was performed, and this was repeated on the three following days. He vomited several times each day, and as he could retain nothing by the mouth he was given five ounces of normal saline containing a drachm of bicarbonate of soda *per rectum* every six hours, and later a drachm of glucose was added. Strychnine was given subcutaneously. The urine was very scanty, measuring only from two to four ounces daily; it contained both acetone and diacetic acid. His temperature varied from 99° to 100.2° F. The outline of the stomach could be seen occasionally. Gastric lavage was performed twice, and a considerable quantity of gastric contents was evacuated each time. The bowels were absolutely constipated and were opened by enema on July the 28th.

Second stage.—Stage of remission. July the 30th to August the 16th.

The vomiting ceased on the night of July the 29th. Chloretone gr. ij was given on July the 30th in a suppository. He was put on small quantities of milk and albumin-water by mouth, and, as vomiting did not recur, this was rapidly increased; bread and butter, fish and chicken were gradually added, and by August the

5th he was taking food well. As soon as the vomiting ceased the urine increased in quantity and averaged about twenty-five ounces daily. On August the 2nd it still contained acetone and diacetic acid, but was free from these bodies on August the 5th.

Third stage.—Recurrence, death. August the 17th to August the 22nd.

The vomiting recurred on August the 17th. Food by mouth was discontinued and the rectal injections were resumed. On August the 18th the breath was free from any odour of acetone, and the urine contained neither acetone nor diacetic acid. On August the 20th acetone was present both in the breath and in the urine. The vomiting persisted. Any attempt at feeding by the mouth was followed by vomiting. The boy complained of epigastric pain and slight fulness was observed in that region. Chloretone suppositories were again tried, but on August the 22nd the temperature rose to 104.2° F. before death.

AUTOPSY (MADE BY DR. H. B. WEIR).

The body was extremely emaciated. The weight six days before death was only 27½ lb. The stomach was considerably dilated and contained a fair amount of foodstuff. The lumen of the pylorus was very small and its wall was thickened, its length measuring about three quarters of an inch. No ulcer and no scar could be found. The transverse colon presented one portion an inch in length, which was narrowed and collapsed with its walls in contact; the neighbouring parts of the colon contained gas, and the transition was abrupt. The mucous membrane of small and large gut were healthy to the naked eye. The lower lobe of the right lung showed much purulent broncho-pneumonia. The remaining thoracic and abdominal viscera were normal. Microscopically the pylorus showed thickening of the muscular wall. The liver gave no fat reaction with Scharlach.

REMARKS.

A review of the symptoms observed in this case warrants the statement that they are practically identical with those described under the heading of cyclic or periodic vomiting of children. I asked my colleague, Dr. W. S. Colman, to see the child with me, and he regarded it as undoubtedly suffering from that affection.

I have been able to collect only ten other fatal cases. F. Lang-

mead has recorded three.* In one, aged 4 years and 11 months, the gastric glands were found to be degenerated, with small hæmorrhages between the tubules; in the second, aged 4 years, there was also some degeneration of the glandular epithelium; in the third, aged 4 years and 11 months, there were several shallow follicular ulcers in the stomach. Fatty changes were present in the liver in all three cases.

Eleanor C. Jones records one,† aged 3 years. There was no acetone in the urine; the stomach was normal, and the liver was fatty. Holt records one without post-mortem details, in which death occurred after an attack lasting seven weeks.‡ Crozier Griffiths records two,§ aged 5 and 6 years respectively, with autopsy in one (aged six years), in which were noted necrotic changes in the mucous membrane of the stomach and intestine, slight parenchymatous alterations in the pancreas, spleen and kidneys, and fatty infiltration in the liver. The body was extremely emaciated.

J. Comby notes three fatal cases in boys, each aged six years, but gives no details as regards autopsy findings.||

CURRENT VIEWS ON THE PATHOLOGY OF CYCLIC VOMITING.

Before discussing any bearing of the above case on this disease, the current views of the pathology of cyclic vomiting will be mentioned very briefly. The discovery of the acetone series of bodies naturally led to the supposition that they must be responsible for the attacks, but with a wider knowledge of the frequency of acidosis under various conditions this view is being modified. Acetone may be found in the breath and urine of children under a variety of conditions.

An adequate hypothesis must explain the attacks of vomiting, the presence of the acetone bodies, and the fatty liver which has been found in the majority of fatal cases.

Langmead¶ assumes that some poison is absorbed from the gastrointestinal tract, which causes the tissues to be flooded by an excess of fat derived from the subcutaneous tissues, an excess which gives rise to imperfect oxidation and so to acid poisoning. The fatty

* 'Brit. Med. Journ.,' February the 18th, 1905, and September the 28th, 1907.

† 'Arch. of Pediatrics,' June, 1909.

‡ 'Diseases of Infancy and Childhood.'

§ 'Amer. Journ. of Med. Sci.,' vol. cxx, 1900, p. 553.

|| "Vomissements cycliques chez les enfants," 'Arch. de Méd. des enfants,' 1909, October, p. 721.

¶ 'Brit. Med. Journ.,' September the 28th, 1907.

liver he regards as the result and not as the cause of the altered metabolism.

Howland and Richards* have observed an increased quantity of indican in the urine before and in the first few days of an attack. They assume in common with many writers on the subject an unstable nervous system, and conclude that as the result of some shock or excitement "a diminished power of oxidation results, and the organism loses the power to detoxify substances absorbed from the intestine which have been present there in excess. These circulate in the blood, exciting their poisonous action, and cannot be excreted by the kidneys because they are not brought to them in the proper form. It seems probable that they are excreted and re-absorbed by the stomach and intestine, in the light of which vomiting would appear to be eliminative and thus a protective mechanism."

Ewing† regards it as "a complex disturbance of metabolism occurring in neurotic and predisposed subjects, in which rapid burning of body fats, defective function of the liver, and poisoning by intestinal putrefactive products are combined."

Comby,‡ in an exhaustive paper on a series of 100 cases, suggests that the cause of cyclic vomiting is chronic appendicitis, and records eight cases in which appendicectomy was performed for the disease. In five cases no further attacks of vomiting occurred, but in three the attacks persisted. In Crozier Griffiths'§ fatal case the appendix had been removed in the last attack preceding the fatal one. It would therefore seem very improbable that the cause of the disease is to be found in chronic appendicitis.

Poisoning arising from the intestinal tract, with resulting imperfect oxidation of fats, and their accumulation in the liver, seem, therefore, to represent the current views as to the pathology of this remarkable affection. A nervous temperament has also been postulated as a factor, and it appears in some cases to have been associated with a tendency to migraine.

ACUTE STARVATION.

Now one of the most striking clinical manifestations of cyclic vomiting is the rapidity with which extreme emaciation occurs.

* 'Arch. of Ped.,' vol. xxiv, 1907, p. 401.

† "Studies from the Department of Pathology," 'Publications of Cornell Univ. Med. Coll.,' vol. viii, 1908.

‡ *Loc. cit.*

§ 'Arch. of Ped.,' vol. xxiv, 1907, p. 401.

Whatever view be held as to the causation of the disease *acute starvation* accompanies it.

The phenomena of acute starvation must therefore be considered, or at least those having a direct bearing on the subject.

Acetone bodies rapidly appear in the urine and breath in starvation. Ewing states that a pronounced acetone reaction is present in the urine in a few hours from the beginning of a fast. Howland and Richards state that the acetone bodies may appear in cyclic vomiting from three to four hours after the last full meal. In my case the final attack began on August the 17th. On the following day there was no smell of acetone in the breath and no diacetic acid in the urine. Both these signs were present on the 20th; no note as to their presence or absence was made on the 19th. They did not appear at the lowest estimate until over twenty-four hours had elapsed.

The relation of starvation to acidosis is a well-established fact and needs no further comment here. The subject has been critically reviewed by Dr. E. I. Spriggs,* who is also of opinion that the acidosis is secondary to the starvation induced by recurrent vomiting.

Fatty liver.—The liver has been found to be noticeably fatty in patients who have died of starvation. Leathes in particular has discussed the question of so-called fatty degeneration. Lebedeff, in 1883, showed that the fat in the liver in phosphorus poisoning was not formed from the proteid of the liver-cells, but was imported from the fat depôts of the body. This has been confirmed by Rosenfeld. Leathes and Dudgeon have shown that the fatty change in the heart brought about by the action of diphtheria toxin is due to the unmasking of fat already present in the heart, but not susceptible of histological staining, together with importation of additional fat. Mottram† has recently shown that in rabbits and guinea-pigs, after twenty-four hours' starvation, there is a huge increase in the visible liver fat and an increase in the percentage of the fat, but owing to the shrinkage of the liver in hunger the rise in percentage cannot always be attributed to an absolute increase of the total fat in the liver, though in many cases a large increase does occur, and that such increase is due to a migration of the depôt fat into the liver.

Fatty change would then be reasonably expected to be present in the liver of patients dying of cyclic vomiting, and such appears to be

* 'Quart. Journ. of Med.,' vol. ii, 1909, pp. 325-345.

† "Fatty Infiltration of Liver in Hunger," 'Journ. of Phys.,' vol. xxxviii, 1909, p. 281.

usually the case. It was, however, absent in my case, but the child was very emaciated. In the middle of the attack for which the boy was admitted into the hospital he weighed only 26 lb., a weight which would have been normal at the end of the second year of age, whereas his age was four years and nine months. Lebedeff found no fatty change in the liver of an extremely emaciated man who died from phosphorus poisoning, and Rosenfeld has shown, in both dogs and fowls, that the amount of fatty change in the liver after phosphorus poisoning varied directly with the amount of fat in the body, and in emaciated animals there might be none appreciable. The fact, therefore, that with extreme emaciation, in which the *dépôt* fat must have been all used up, there is no fat in the liver, is an additional argument in favour of the view that the fat in the liver is derived from the *dépôt* fat. The absence of fat in the liver, in the case under consideration may be also partly accounted for by the fact that glucose was administered *per rectum*. The metabolism of fat seems to require the presence of carbohydrate, and the glucose may have enabled it to be oxidised in this case.

I have gone into these details, as they tend to show that both the acidosis and the fatty liver can be explained by the acute starvation involved in cyclic vomiting, and that the cause of the vomiting is to be sought elsewhere.

THE PRESENCE OF HYPERTROPHIC STENOSIS OF THE PYLORUS IN THE AUTHOR'S CASE.

The interest of the case under discussion lies in the fact that the autopsy revealed the existence of well-marked hypertrophic stenosis of the pylorus with dilatation of the stomach. The possibility that this condition may have been the cause of the attacks of cyclic vomiting has, therefore, to be considered.

Hypertrophic stenosis of the pylorus is an affection of young infants, and the only case at all comparable to the one above described that I have been able to find in the literature was recorded by Dr. F. W. Shaw.* Unfortunately I have not been able to find the original paper, but it is quoted by Dr. J. Finley Bell.† The patient was a boy, aged 5 years, subject to recurrent attacks of vomiting and abdominal pain, each lasting several days; death occurred after an attack lasting ten days. At the post-mortem a hard mass of muscular tissue was found at the pylorus,

* 'Brooklyn Med. Journ.,' May, 1903.

† 'Arch. of Pediatrics,' April, 1909.

and while the canal admitted a probe under pressure, it was absolutely tight to fluid. No mention is made in the abstract of the acetone bodies.

On examination of the post-mortem records of the fatal cases of cyclic vomiting no mention is made either of stenosis of the pylorus or of dilatation of the stomach.

[In his series of one hundred cases Comby notes dilatation of stomach as having been present in twenty-five, but gives no details as to the exact physical signs on which he bases the statement.]

Now whilst it is possible that hypertrophic stenosis of the pylorus might be overlooked at an autopsy on a child past the age at which that condition is apt to be present, yet it is impossible that it could have escaped detection in all.

Whilst, therefore, it is obvious that an actual stenosis of the pylorus is not an essential factor in the disease, its presence in this case may supply a clue to the causation of some attacks of this nature. Despite the well-marked stenosis the attacks were essentially intermittent, and it is submitted that they were due to the occurrence of *pyloric spasm* rendering the obstruction complete.

If we consider the current views of the pathology of hypertrophic stenosis of the pylorus, we find that pyloric spasm is credited by many not only with the production of the symptoms but with the production secondarily of the muscular hypertrophy. Mr. Shattock supports this view,* and assumes a hyperæsthetic condition of the pyloric mucosa with reflex closure when the stomach tries to pass its contents into the duodenum.

Koplik† classifies the cases according as spasm only is present or spasm with muscular hypertrophy.

G. F. Still regards spasm as the cause of the obstruction, and further, is of opinion that the degree of spasm may vary at different times in the same case.‡

We are probably justified in assuming that in the case under discussion there would be a tendency to muscular spasm.

On this hypothesis we have an adequate cause for the attacks of vomiting. So long as the spasm lasted the obstruction at the pylorus would be complete. Should it persist long enough the phenomena of acute starvation would of necessity follow, with resulting acidosis. The fatal issue followed on the inanition and exhaustion.

* "Idiopathic Dilatation of the Urinary Bladder," 'Proc. of the Roy. Soc. of Med.,' vol. ii, No. 2, 1908, Pathological Section.

† "Congenital Pyloric Spasm and Congenital Hypertrophic Stenosis of the Pylorus in Infancy," 'Amer. Journ. Med. Sci.,' July, 1908.

‡ 'Common Disorders of Childhood.'

In the present vague condition of our knowledge it is probable that more than one clinical entity lies hidden under the symptomatic and rather misleading name, "cyclic vomiting." It is not suggested that pyloric spasm is the active factor in all; but it is submitted that the evidence of this case goes far to prove that *recurrent pyloric spasm* is quite sufficient to account for recurrent attacks of vomiting associated with other symptoms, and presenting all the features described as characteristic of cyclic vomiting.

The hypothesis of muscular spasm is consistent also with the fact that in many cases the attack commences absolutely suddenly and unexpectedly. Relaxation of the spasm would be followed by the sudden cessation of the attack, which is often a very noticeable feature. In the event of death all evidence of narrowing of the pylorus would have disappeared.

It would be premature to speculate on the causes that might lead to pyloric spasm in young children until further observations have been made on cases of this nature.

BEARINGS ON TREATMENT.

The indications for treatment based on the view that pyloric spasm is the cause of many attacks of cyclic vomiting harmonise with what experience has been found to be useful.

All food should be withheld from the stomach from the commencement of an attack. Lavage would also alleviate symptoms and might quickly cut an attack short. Rectal feeding with normal saline should be instituted to replace loss of water from the tissues and to relieve the intense thirst. Glucose should be added to the saline, not only as a food, but also because the adequate utilisation of fat requires the co-operation of active carbohydrate metabolism. The symptoms attributable to the acidosis may be treated by adding bicarbonate of soda to the rectal feeds. In a severe case subcutaneous injections of saline should be used. Sedatives, such as morphia, have been used, and could be given either hypodermically or as a suppository. In this case chloretone was tried.

PURPURA FULMINANS.*

By J. D. ROLLESTON, M.A., M.D.Oxon.,

AND

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A BOY, aged 6 years, with no family history of purpura or bleeding, was admitted to the Grove Fever Hospital at 10.30 p.m. on January the 14th, 1910, certified as suffering from hæmorrhagic diphtheria. There had been a history of sore throat, headache, and vomiting ten days prior to admission.

No cultures of the throat had been taken, and no antitoxin had been given. Between 4.30 and 5 p.m. on the day of admission the mother had first noticed a large bruise on the right thigh.

On admission an extensive blackish-red ecchymosis was seen on the outer side of the right thigh, and there was a similar lesion on the right buttock. Apart from some indefinite desquamation on the trunk the rest of the skin was normal. The throat was clean, and showed no evidence of recent inflammation, but there were numerous carious teeth with pus exuding from the sockets. The right sub-maxillary lymph-glands were enlarged and tender. Temperature 100.4° F.

During the night and following day the ecchymosis rapidly spread so as to occupy the distribution represented in the photograph taken shortly before death, which occurred at 3.30 p.m. on January the 15th, less than twenty-four hours after the first appearance of purpura. Apart from a small area over the left elbow the lesions were confined to the lower limbs. They were very tender to the touch, and were accompanied by œdema of the feet and legs.

Death was preceded by extreme anæmia, vomiting, restlessness, and a subnormal temperature. The mind remained clear until the end. No hæmorrhages from any mucous membrane occurred. The vomit consisted of green fluid, and a stool passed a few hours before death was of normal colour and consistency. The urine contained a trace of albumin but no blood.

Blood-examination by Dr. McCririck.—Hæmoglobin, 50 per cent.; red cells, 1,780,000; colour index, 1.4; numerous microcytes; no poikilocytes nor normoblasts; white cells, 57,600.

* Photograph shown at the Section for the Study of Disease in Children of the Royal Society of Medicine, January the 28th, 1910.

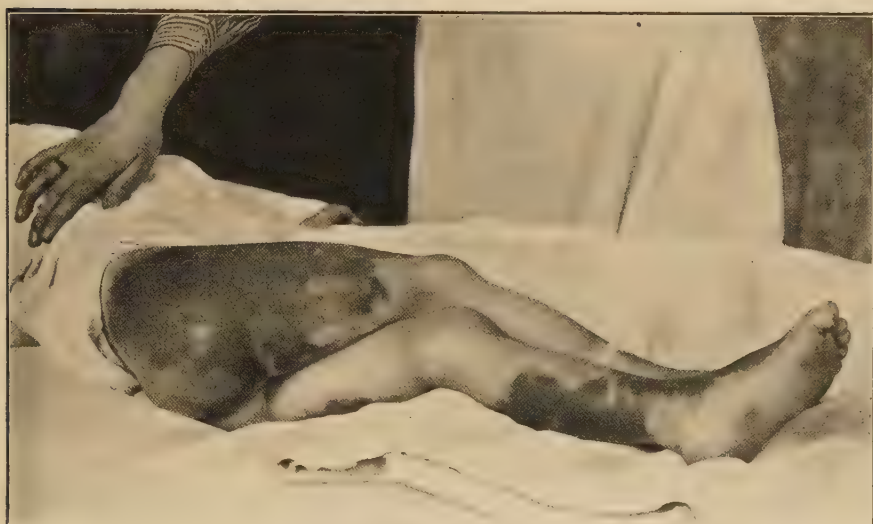
Differential count (1000 cells counted) : Polymorphonuclears, 63·4 per cent. ; small lymphocytes, 26·8 per cent. ; large mononuclears, 2·5 per cent. ; eosinophiles, 1·0 per cent. ; myelocytes, one of which was eosinophilic, 6·3 per cent. ; mast cells, 0.

The blood-platelets were not increased.

The serum was markedly hæmolytic to normal human corpuscles in twelve hours in 1 in 50 dilution.

Streptococco-opsonic index 2·31.

At the autopsy the blood was found to be remarkably fluid and to show no tendency whatever to clot.



The present case exactly corresponds to Henoch's description of purpura fulminans in the extreme rapidity of the ecchymosis formation, the entire absence of hæmorrhages from the mucous membranes, or in the internal organs, and in its rapidly fatal course. As in Henoch's cases, nothing was to be found at the autopsy beyond marked anæmia of all the organs, including the brain and supra-renals, hæmorrhage into which had been noted in some cases of purpura. Microscopical sections of the liver and kidneys were made by Dr. McCririck and examined by Dr. H. D. Rolleston, who could find practically no morbid change in them.

Elliott, of Chicago, has recently collected fifty-six cases of purpura fulminans, including a personal case, but of these eighteen had hæmorrhages from the mucous membranes, and nine of the twenty

on whom an autopsy was performed showed hæmorrhages in the viscera. Four recovered, so that comparatively few, like the present case, merit the title of purpura fulminans as Henoch described it.

The average duration of the fifty-two fatal cases was fifty-two and a half hours after the first occurrence of purpura, the shortest being five hours and the longest ten days. Nineteen, like our own case, died within twenty-four hours.

Had the boy survived longer he would probably have developed gangrene or hæmorrhagic bullæ in the lesions, as occurred in several of the cases recorded. Sixteen of the cases published followed scarlet fever. In addition to eleven mentioned by Elliott are those of Bertling, Biss, Cullen, Miller, and Rice-Oxley.

As in one of Henoch's cases, the pre-existence of scarlet fever in our case was possible, but not certain. In favour of scarlet fever were the suggestive history, the desquamation, the submaxillary adenitis, which often occurs in convalescence from scarlet fever and was noted in several of the cases, and the isolation from the heart-blood of a streptococcus, which, according to Dr. McCririck, presented the following characters of the *Streptococcus scarlatinae* described by Mervyn Gordon: well-formed chains, much acid formation, and marked curdling of litmus milk, and no turbidity in broth or gelatin at 37° C.

In any case it is highly probable that the condition of oral sepsis contributed to the development of purpura.

The diagnosis of hæmorrhagic diphtheria may be unhesitatingly rejected. In the first place the throat cultures showed no diphtheria bacilli. Secondly, apart from the very rare cases of purpura occurring in convalescence, skin hæmorrhages in diphtheria always occur during the acute stages of a severe attack, and are associated with other signs of malignancy, such as extensive membrane, faucial and palatal œdema, disproportionate adenopathy and fœtor, none of which were present in this case. Lastly, the distribution and size of the skin lesions were quite unlike those seen in hæmorrhagic diphtheria, in which they are almost invariably small and discrete.

The possibility of the case being one of hæmorrhagic smallpox, which Henoch mentions only to dismiss, may also be set aside. The boy had four good vaccination cicatrices, and the character of the onset, attendant symptoms, and distribution of the lesions, as well as the absence of exposure to infection, entirely negated such a diagnosis.

INVESTIGATION INTO OCCURRENCE OF ADENOIDS. 61

REFERENCES.

- (1) BERTLING.—‘Journ. Amer. Med. Assoc.,’ ii, 1909, p. 383.
- (2) BISS.—‘Lancet,’ ii, 1902, p. 286.
- (3) CULLEN.—‘Brit. Med. Journ.,’ i, 1903, p. 197.
- (4) ELLIOTT.—‘Arch. of Intern. Med.,’ vol. iii, 1909, p. 193.
- (5) HENSCH.—‘Berl. klin. Wochenschr.,’ 1887, p. 8; and ‘Vorles. über Kinderkrank.,’ 10te Aufl., 1899, p. 849.
- (6) MILLER.—‘Lancet,’ i, 1905, p. 929.
- (7) RICE-OXLEY.—*Ibid.*, ii, 1900, p. 485.
- (8) ROLLESTON, J. D.—‘Metrop. Asylums Board Reports,’ 1908, “Hæmorrhagic Diphtheria.”

AN INVESTIGATION INTO THE OCCURRENCE OF ADENOIDS IN THREE OF THE LONDON COUNTY COUNCIL ELEMENTARY SCHOOLS.

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THE investigation, of which this paper gives the results, was undertaken at the request of Dr. Kerr, Chief Medical Officer (Education) to the London County Council, at the instance of the managers of the three schools forming the “Cook’s Ground” group in Chelsea. The schools comprise the Walton Street, the Marlborough, and the Cook’s Ground Elementary Schools, and the numbers contained therein at the time of the investigation are shown in the following table:

TABLE A.

School.	Departments.						Totals.
	Infants.	Mixed.	Junior mixed.	Senior mixed.	Boys.	Girls.	
Walton Street . . .	114	119	—	—	—	—	233
The Marlborough . . .	360	—	433	403	—	—	1196
Cook’s Ground . . .	273	—	—	—	316	297	886
Totals . . .	747	119	433	403	316	297	2315

The investigation occupied the winter of 1907–08, and comprised

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an inquiry into the numbers of children suffering from enlarged tonsils, adenoids, or tonsils and adenoids, their relation to age, ear complications, condition of the teeth, palate shape, and aprosexia.

Owing to the fact that the method of investigation was changed after the first few days the results naturally fall into two groups, of which the second is more valuable from the point of view of statistics. At the Walton Street School and the senior and junior mixed departments of the Marlborough School every child was not examined, but the various standards and classes were visited, and those scholars whom the teachers reported as having ear disease, or as inattentive, mouth-breathers, or frequently "catching colds," were segregated and examined, together with those who seemed to me as likely to have adenoids from their appearance. In the infants' department of the Marlborough and in all three departments of the Cook's Ground Schools, however, I made a routine examination of every child. As it is obvious that, with these latter only, can any deductions and comparisons with normal children be drawn safely, these results have been shown separately and classified differently. The two investigations are, therefore, designated under the letters A and B.

INVESTIGATION A.

This relates entirely to Walton Street, in which there are two Departments, infants' and mixed, and to the senior and junior mixed departments of the Marlborough. Here certain scholars were selected as likely to have adenoids and examined. The number of children thus examined are shown in Table B.

TABLE B.—*Number of Scholars Selected for Examination.*

School.	Department.	Number on roll.	Number examined.
Walton Street	Infants . . .	114	53
	Mixed . . .	119	31
The Marlborough	Junior mixed . . .	433	133
	Senior mixed . . .	403	98
Totals . . .		1069	315

All were examined as to the presence of tonsils, adenoids, or both, but no note was taken of the teeth, except the occurrence of

irregular upper incisors, until the Marlborough children were reached. The results appear best in tables, of which the following have been compiled :

TABLE C.—*General Results.*

Sex.	Normal.	Tonsils.	Adenoids.	Tonsils and adenoids.	Ear complications.	Mouth-breathers.	
						Complete.	Partial.
Boys . . .	60	7	24	104	4	64	17
Girls . . .	51	3	11	55	8	25	5
Totals	111	10	35	159	12	89	22

Of the children with adenoids, three had frequent colds and one stuttered, whilst of those with tonsils and adenoids, ten had frequent colds and three stuttered (one of the latter was mentally defective). Of the twelve cases of ear complications, eight had discharge and four catarrhal middle-ear conditions; all had adenoids. Of the normal children, eight were complete and three partial mouth-breathers, but only one suffered from frequent colds; they all showed œdema of the inferior turbinals, but in none could any adenoids be discovered. The relation of mouth-breathing to adenoids is shown in Table D.

TABLE D.—*Analysis of Mouth-breathers.*

Mouth-breathers.		Normal.	Adenoids.	Totals.
Complete	Boys . . .	7	57	64
	Girls . . .	1	24	25
Partial	Boys . . .	3	17	20
	Girls . . .	0	2	2
Totals . . .		11	100	111

The age incidence in the 315 scholars examined is shown in Table E, but as all the children in the departments referred to were not examined, it is impossible to compare the numbers with those of the normal children.

TABLE E.—*Age Incidence.*

Sex.	Condition.	Age in years.												Totals.
		3	4	5	6	7	8	9	10	11	12	13	14	
Boys {	Normal	0	2	6	2	4	7	9	3	7	7	10	3	60
	Adenoids	1	1	5	9	12	20	21	24	12	12	11	3	131
Girls {	Normal	0	1	5	1	4	12	4	9	6	5	2	2	51
	Adenoids	0	8	4	3	6	17	8	5	10	4	7	1	73
Totals .		1	12	20	15	26	56	42	41	35	28	30	9	315

The next point taken was that of *aprosexia*. Out of the 315 examined, 9 showed this condition, thus tabulated:

TABLE F.—*Aprosexia.*

Sex.	Normal.	Adenoids.	Mouth-breathers.
Boys . . .	0	6	5
Girls . . .	1	2	1
Totals .	1	8	6

The one case classified as "normal" (no adenoids or nasal abnormality to be detected) was an underfed child, aged 9 years, with bad home conditions. Her teeth were good and the palate broad and of normal height. These children with *aprosexia* will be included in Investigation B, when dealing with this subject.

The important question of the relations of palate shape in normal and adenoid children requires some discussion. In examining a large number of scholars it was found that the breadth of the palate fell into three groups, which, for convenience, have been classified as *broad*, *medium* and *narrow*, and that these could be grouped further as normally or abnormally high. The results of this classification are shown in Table G, in which the separation of the sexes has been considered unnecessary. Children having enlarged tonsils only are classed with the normal.

TABLE G.—*Palate Shape in Normal and Adenoid Children.*

Condition.	Normal height.			Abnormal height.			Totals.
	Broad.	Medium.	Narrow.	Broad.	Medium.	Narrow.	
Normal	61	35	10	1	7	7	121
Adenoids	74	55	24	4	23	14	194
Totals	135	90	34	5	30	21	315

In the next five tables (H to M) are analysed the relations of carious teeth to tonsils and adenoids, to palate shape and to mouth-

TABLE H.—*Relation of Carious Teeth in Adenoid and Normal Children.*

Ages.	Condition.	Good teeth.	Number of carious teeth.												Total carious.	Irregular incisors.
			1	2	3	4	5	6	7	8	9	10	11	12		
7 to 14	Adenoids	40	7	24	23	15	7	5	3	3	5	3	2	1	98	8 in 138
	Normal	50	3	8	8	11	6	3	1	1	2	1	0	0	44	1 in 94

TABLE J.—*Carious Teeth and Palate Shape.*

Condition.	Palate shape.		Good teeth.	Number of carious teeth.												Totals.
				1	2	3	4	5	6	7	8	9	10	11	12	
Adenoids	Normal height	Broad	20*	3	10*	6	4*	3	0	2	0	2	0	1	1	32
		Medium	17	6	7	12	5	3	3*	0	1	0	1	0	0	38
		Narrow	3*	0	5	1	2	12	1	0	0	0	0	0	0	12
	Abnormal height	Broad	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Medium	3	0	2	1	2	0	0	0	2*	2	2	0	0	11
		Narrow	1	0	0	3	3*	0	0	0	1	0	1*	0	0	8
Normal	Normal height	Broad	21	1	3	4	6	3	1	1	0	0	0	0	0	19
		Medium	19	0	3	0	4	1	1	0	0	2	1	0	0	12
		Narrow	1	0	0	3	0	1	1*	0	1	0	0	0	0	6
	Abnormal height	Broad	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Medium	3	0	1	0	0	1	0	0	0	0	0	0	0	2
		Narrow	2	0	0	1	1	0	0	0	0	0	0	0	0	2
Totals			90	10	31	31	27	13	8	4	4	7	4	2	1	142

Each figure marked * includes one case presenting irregularity of the upper incisors

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TABLE K.—*Relation of Mouth-breathing and Carious Teeth.*

Mouth-breathers.	Good teeth.	Number of carious teeth.												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	
Complete	17 ¹	0	10	12	10 ²	2	2	0	2	3	0	1	0	42
Partial	8 ³	0	3	1	2 ⁴	1	1	1	0	0	0	0	1	10
Totals	25	0	13	13	12	3	3	1	2	3	0	1	1	52

¹ 4 normal; ² 1 normal; ³ 2 normal; ⁴ 1 normal, making a total of 8 normal children.

TABLE L.—*Relation of Mouth-breathing and Palate Shape.*

Condition.	Mouth-breathers.	Normal height.			Abnormal height.			Totals.
		Broad.	Medium.	Narrow.	Broad.	Medium.	Narrow.	
Adenoids {	Complete	14	20	6	2	6	5	53
	Partial	9	6	1	0	0	0	16
Normal {	Complete	1	4	0	0	0	1	6
	Partial	1	1	0	0	0	0	2
Totals		25	31	7	2	6	6	77

TABLE M.—*Cases having Irregularity of the Upper Incisors.*

No.	Sex.	Age.	Palate shape.	Teeth.	Adenoids.	Mouth-breathing.
1	Boy	8*	Narrow high	Not noted	Yes	No
2	"	9	"	11 carious	"	"
3	"	11	Broad	2 "	"	"
4	"	13	Narrow high	4 "	"	Yes
5	"	13	Broad	Good	"	"
6	"	14	Narrow	6 carious	No	No
7	Girl	8	Medium	3 "	Yes	Yes
8	"	9	Medium high	8 "	"	"
9	"	10	"	Good	No	No
10	"	12	Narrow	"	Yes	Yes

* From Walton Street, Mixed Department.

breathing, the relation of mouth-breathing to palate shape, and the cases which presented irregularities of the upper incisors. The figures under the heading "carious teeth" give the number which

were obviously decayed, no search being made for small spots of early dental caries. Scholars in whom no obvious caries could be detected are classified as having "good teeth." It need hardly be said that some of these may have had specks of decay hidden from view. Except for one case of irregularity of the upper incisors, these tables relate only to the junior and senior mixed departments of the Marlborough. The results emphasise the necessity for careful dental examination in elementary school children.

INVESTIGATION B.

From this were obtained results which are much more valuable than those given in the foregoing tables, since they enable us to compare the abnormal with the normal children. The number of scholars examined was 1246, of which 667 were boys and 579 were girls: The general results are shown in Table N.

TABLE N.—*General Results.*

Sex.	Normal.	Enlarged tonsils.	Adenoids.	Tonsils and adenoids.	Ear complications.	Mouth-breathers.	
						Complete.	Partial.
Boys . . .	400	33	66	168	14	76	18
Girls . . .	310	32	65	172	37	52	28
Totals . . .	710	65	131	340	51	128	46

Stated in percentages (which, perhaps, bring results more clearly home to the reader), it will be seen that, of 1246 children of both sexes, 56·9 per cent. were normal, 5·2 per cent. had enlarged tonsils, 10·5 per cent. had adenoids only, and 27·2 per cent. had both tonsils and adenoids. The greater frequency of the association of adenoids with hypertrophied tonsils is well known and will be referred to again later.

The children examined formed a very fair average sample of the class of scholars to be found in the elementary schools of a large city like London, and showed varying conditions of physique and home surroundings. In very poor neighbourhoods the percentage of adenoids (37·7) would in all probability be found higher, in better areas lower, and it may be taken that the children under consideration came somewhere midway between the two.

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Of the other points arising out of this table I shall leave the question of ear complications to be discussed later, and take next that of *mouth-breathing*.

TABLE O.—*Mouth-Breathers.*

Sex.	Mouth-breathers.	Normal.	Adenoids.	Tonsils and adenoids.	Totals.
Boys	Complete	12	25	38	75
	Partial	2	3	14	19
Girls	Complete	8	17	27	52
	Partial	5	7	16	28
Totals		27	52	95	174

Out of the 1246 children, 174 were complete or partial mouth-breathers, *i. e.* 13·9 per cent. showed this symptom (72·9 per cent. of the mouth-breathers were complete and 27·0 per cent. partial). Of these, 27 (15·5 per cent.) were normal, 52 (29·3 per cent.) had adenoids, and 95 (57·5 per cent.) had adenoids and tonsils. The normal children who were mouth-breathers showed various conditions of nasal obstruction due to other causes, the remaining 147 showing marked adenoids. One child must be mentioned whose mouth-breathing was due to enormously hypertrophied tonsils, which completely blocked the oro-pharynx, so that breathing could only be carried out through the mouth. Their removal resulted in immediate restoration of nasal breathing. I mention this case because I do not think enough stress has been laid upon the fact that mouth-breathing

TABLE P.—*Age Incidence.*

Sex.	Condition.	Age.												Totals.
		3	4	5	6	7	8	9	10	11	12	13	14	
Boys	Normal *	11	29	53	75	45	29	31	42	39	31	46	3	434
	Adenoids	0	9	28	48	37	33	15	20	12	15	14	2	233
Girls	Normal *	5	23	49	59	37	23	32	28	27	23	28	8	342
	Adenoids	0	7	18	51	28	23	28	14	23	26	18	1	237
Totals		16	63	148	233	147	108	106	104	101	95	106	14	1246

* Includes those with enlarged tonsils only.

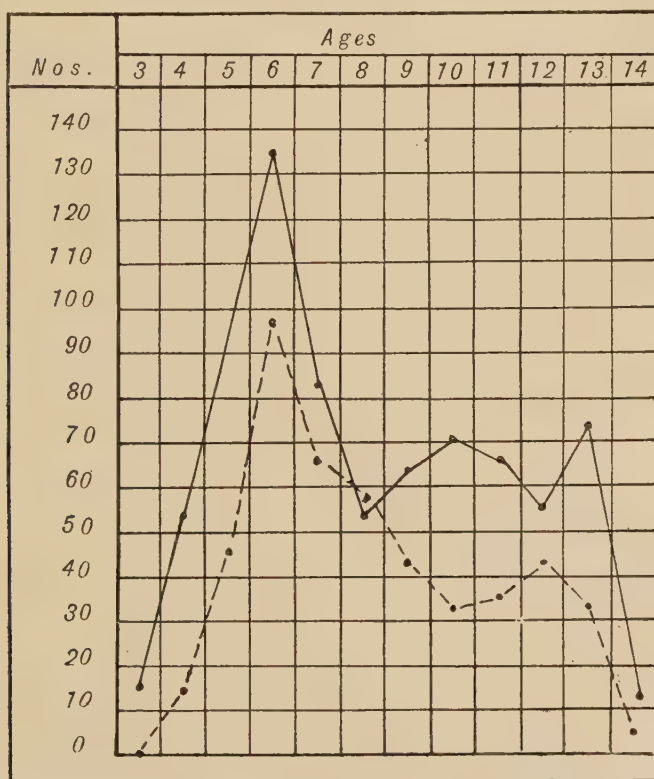
may be entirely owing to large tonsils, although it is a phenomenon of by no means infrequent occurrence.

I shall have occasion to refer again to mouth-breathing in connection with dental caries and palate shape.

In working out this table of *age incidence* I reduced it to a question of curves, and found that the curves relating to the sexes followed one another so closely as to be of no moment, a fact which, considering the allied physiological condition of the sexes before puberty, is not surprising. The most useful curves were those showing the relation between normal and adenoid children at different ages, both as regards numbers and percentages, and these I give in the two following tables, P¹ and P².

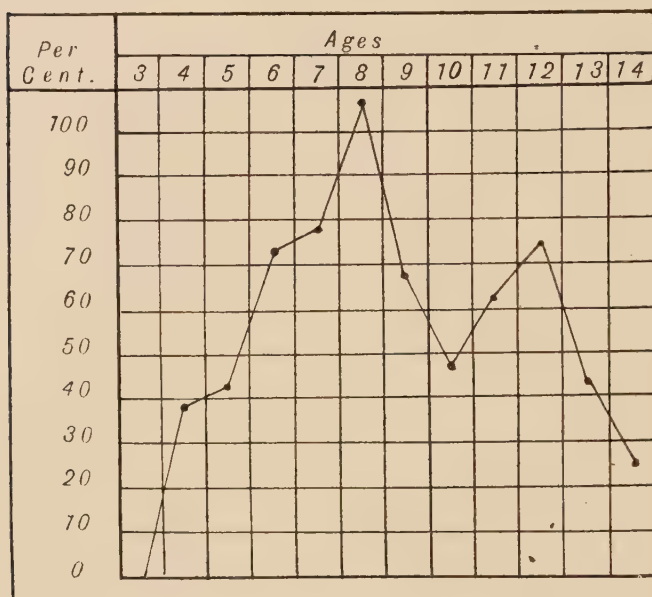
If we compare the curves in Table P¹, it will be seen that between the ages of 3 and 7 years the numbers of normal and adenoid

TABLE P¹.—*Curves showing Numbers of Normal and Adenoid Children at Different Ages.*



The normal children are shown by —, the adenoid children by - - - -

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TABLE P².—*Curves showing Percentage of Adenoid Children at Different Ages.*

children follow one another closely, that between 7 and 10 there are fewer cases of adenoids than of normal children, that between 10 and 12 the adenoids take the ascendant, declining between 12 and 14, and becoming considerably less compared with the normal at 13 years. The same course is shown more markedly if the curve is taken on the percentage system, a method by which one can gauge much more accurately the incidence of adenoids at the different periods between the ages of 3 and 14 years.* The actual percentages were :

Age . .	3	4	5	6	7	8	9	10	11	12	13	14
Percentage	0	38	41	73	79	107	68	48	63	75	43	27

showing that the most frequent age for adenoids is 8 years, and that there is a second period, at 12 years, when adenoids are again more frequently found.

The observations of other investigators are in accord with the above. Sprague ('Boston Med. and Surg. Journ.,' vol. clv, pp. 400-405), in his "Observations on One Thousand Adenoid Cases," of which 503 were boys and 497 girls, found the ages varied from 6

* It may be noted here that those children who had had their adenoids removed were classed as adenoid cases.

months to 37 years, and that the largest number at any one age was 64 at 8 years, only 28 being over 21 years. Between 1 and 7 there were 30 per cent., between 7 and 14, 50 per cent., and between 14 and 21, 20 per cent. McBride and Logan Turner ('Edinburgh Med. Journ.,' April, May and June, 1897) examined 500 cases, in which the age was noted in 488. They found the condition to be "most common between 6 and 15," the numbers being—0 to 5 years, 57; 6 to 10 years, 141; and 11 to 15 years, 115.

Aprosexia.—The frequency of aprosexia among adenoid children is the next question to which I would draw attention. As, in this matter, a careful search for cases of true aprosexia was made in all departments of all the schools examined, and care was taken to ensure that none of them escaped observation, those that have been mentioned already in Investigation A may be included here.

The term "aprosexia" was first suggested by Guye, of Amsterdam, in 1887, to describe a condition not infrequently met with in children who suffer from a marked degree of adenoids. The word is derived from *a*, *priv.*, and *προσεχειν*, to heed, and means a defective power of attention. The defective condition consists chiefly in a want of concentration. In adenoid subjects mental concentration seems often impossible, or the effort necessary for it appears to exhaust them in a very short time. Continental writers seem inclined to attribute this to the lymphatic connection which exists between the nose and the subarachnoid space. It is due probably to interference with the cerebral hæmic or lymphatic circulation and the deficient oxygenation of the blood which is supplied to the brain. The investigations of Lichtwitz and Sabrazes ('Arch. Internat. de Laryngol.,' vol. xii, No. 6) have shown that children with adenoids suffer from a mild form of anæmia and leukæmia, a condition which cannot fail to react disadvantageously upon so actively growing an organ as the brain. The later work of Tormene ('Arch. Ital. di Otol., etc.,' November, 1907), in which he divides the red blood-corpuscles into three groups according to their resistance—maximum, medium, and minimum—shows that in advanced cases there is an increase of the maximum resistance, which continues for not less than six weeks after removal of adenoids, when it gradually sinks to normal. Tormene suggests that, as in certain morbid states (*e.g.* icterus), a substance possessing a katatonic action is found in the blood, there may be in adenoid subjects a substance with hæmo-anatonic action which will affect certain groups of red corpuscles in an opposite sense to the action of the katatonic agents.

(To be continued.)

CASE OF SPASMUS NUTANS WITH NYSTAGMUS.

By J. BOYD BARRETT, M.B.,

Assistant Surgeon, Children's Hospital, Temple Street, Dublin.

A GIRL, aged 8 months, displaying this interesting condition was seen by me some days ago. The occurrence of a typical case during a month associated with the ætiology of the disease is not without interest.

The mother was greatly alarmed, as she fully believed the child was an imbecile. She was, she said, comforted by an old woman, who told her that the child would get all right, as she had seen another child with a similar disease, and it was now quite well. The prognosis of the old lady is much to be commended, and we hope she has not confounded the condition with *petit mal*; but let her have every credit.

The disease commenced when the child was five months old. It was now at the worst. The mother could not say definitely whether the nystagmus had preceded the head-movements or *vice-versâ*.

The child presents side-to-side movements of the head with short intervals of repose. The motions are gentle and rapid, and differ markedly from the "head-banging" of idiocy.

The intervals of rest are irregular, lasting from some seconds to some minutes, and include the time when the child's head is reposing on a pillow or its mother's shoulder. When active the motions number about 100 per minute.

The nystagmus consists of fine horizontal oscillations. There are also periods of repose. The head and eyes move at times together. At other times they are independent of each other.

The child has a "coy" way of looking at an observer out of the corner of the eyes—a characteristic emphasised by Dr. Still. This latter peculiarity and the quietude of the head when resting against anything are considered diagnostic.

The nystagmus and the motions of the head are increased by any effort of the child to watch an object. The motions of the head are lateral. I have not seen any antero-posterior.

The condition in this case, like laryngismus stridulus, tetany, and facial irritability, is probably due to rickets. Although I could observe no osseous changes, nor any of the grosser indications of rickets, I believe it is the more likely cause. There possibly exists a catarrhal condition of the intestine, which keeps the nervous

system in a state of irritation. The osseous changes in rickets, while all-important, are only a part of the disease, a serious manifestation of it. Besides, this child at the age of eight months has no teeth, has been fed only on milk diluted with an equal portion of barley-water, and kicks off the clothes at night.

The theory of the relation of dentition to spasmodic nutans might be urged. But this child is not cutting its teeth. There is no sign of teeth at all. It must also be remembered that the disease was first noticed at the age of five months, when few children are troubled with teething.

The "leading" question about living in a dark room was, as was expected, answered in the affirmative. Little importance can be attached to this.

In conclusion, I noticed at times marked shaking of the hands and arms. This is recorded in two of Dr. Still's cases and two of the thirty-five of Dr. J. Thompson.

The Royal Society of Medicine.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

Friday, January the 28th, 1910.

Dr. H. D. ROLLESTON *in the Chair.*

A Case of Congenital Œdema with Dilatation of the Intestinal Lymphatics was described by Dr. DAVID FORSYTH. A boy, aged 7 weeks, weighing 4.25 kilos., was admitted to the Evelina Hospital on account of his œdematous arms and legs. He was an only child. From the first his left hand, left foot, penis, and scrotum were much swollen. His right leg was affected to a less degree. No family history of congenital œdema could be obtained. The back of the left hand was enormously swollen, looking as if it had been blown up tightly with air. The fingers and wrist were normal, but the œdema appeared again in the forearm. The dorsum of the left foot and the outer side of the left leg showed another large œdematous mass. The right arm and foot were swollen. The penis and scrotum were thrice their proper size. All these œdematous areas pitted readily. The face and trunk showed nothing amiss. The patient seemed to pass an average quantity of urine, which contained no albumin. After a sudden rise of temperature he died somewhat unexpectedly.

Post-mortem examination: The œdematous patch on the left leg was incised, and appeared as a greyish-white, gelatinous mass. Microscopically,

it was composed of connective tissue, with large spaces which had been distended with clear fluid. The peritoneum covering the stomach, intestines, and mesentery was opaque, slate-coloured, and very greatly thickened. Freely scattered over it were numbers of white specks, which at first sight seemed to be lymph, but on closer examination were found to lie beneath the peritoneum. In many places they were arranged in fairly regular lines running across the axis of the gut, and many projected above the surface of the peritoneum. Under the microscope they proved to be distended lacteals. The mesenteric glands were healthy. About 100 c.c. of non-fatty turbid fluid had collected in the peritoneum. The heart, lungs, and other viscera were healthy.

A Specimen of Hemiatrophy of Cerebral Hemisphere was shown by Dr. H. D. ROLLESTON and Dr. A. C. D. FIRTH. A girl, aged 1 year and 2 months, was admitted for hemiplegia. The mother gave a history of a series of fits at irregular intervals, the paralysis being noticed after the last. Examination showed spastic paralysis of the right arm and leg, and hemianopia involving the temporal half of the left retina and the nasal half of the right. The child died from meningitis. Post-mortem the left cerebral hemisphere was markedly atrophic.

A Specimen of Prolapse of Intestine through Ectopia Vesicæ was shown by Dr. A. C. D. FIRTH. The child was admitted, when a few hours old, for ectopia vesicæ and imperforate anus. Shortly after admission meconium was passed *via* the bladder, and three days later a portion of intestine, $1\frac{1}{2}$ in. in length, prolapsed the same way. Flatus and fæces were passed through the prolapsed gut. The child died on the sixth day after admission. The specimen, consisting of bladder and intestines, was removed *en masse*. Coming through the posterior wall of the bladder is the portion of prolapsed intestine. On the posterior aspect of the bladder the small intestine alone enters the fistula. Immediately to the left of the opening into the bladder are the cæcum and appendix. No mesentery is present. In addition to these defects, post-mortem examination showed congenital cystic disease of both kidneys and marked hypertrophy of the pylorus.

Malignant Diphtheria with Multiple Lesions in an Infant.—Dr. J. D. ROLLESTON showed a specimen of the fauces and pharynx of a female child, aged 6 weeks, hand-fed, who was admitted to the Grove Fever Hospital on December the 4th, 1909, on the fourth day of disease, with membrane on the tonsils, anterior pillars, uvula, pharynx, and epiglottis. Membrane was also seen in the anterior nares, on the buccal mucosa, extending inwards from each corner of the mouth, on the labia majora, and on the skin round the anus. From all these lesions diphtheria bacilli were cultivated. Twelve thousand units of antitoxin were given subcutaneously on admission and on each of the two following days. Palatal palsy occurred on December the 6th, and death took place the same day. The temperature was subnormal throughout the child's stay in hospital. The autopsy showed double broncho-pneumonia and an infarct in the lower lobe of the right lung. An anti-mortem clot was found in the right ventricle.

Dr. J. D. ROLLESTON said that this case was of interest on account of the early age of the patient, the multiplicity and unusual situation of the lesions, and the malignant character of the attack. The rarity of diphtheria during the first year, and especially during the first two months of life, was

illustrated by the following figures: Of 7285 cases of diphtheria admitted to the Grove Fever Hospital between August the 23rd, 1899, and December the 31st, 1909, only 76, or 1·04 per cent., were under 1 year, and of these only 4, including the present case, were under two months of age.

Diphtheria in infants is often confined to the nose; in some cases it affects the larynx as well, but in the present case not only were the fauces, nose, and epiglottis affected, but also the buccal mucosa and skin of the ano-genital region. The ano-genital diphtheria was probably caused by auto-inoculation of pre-existent lesions due to diarrhœa. Cutaneous diphtheria co-existent with diphtheritic angina, which was so frequent in the time of Bretonneau and Trousseau, was rarely seen nowadays. The malignant character of the attack was shown by the absence of reaction to large doses of antitoxin, and by the early development of palatal paralysis. The present case had been artificially fed, but children at the breast were not altogether immune to diphtheria. Epidemics in sucklings had been recorded by Siredey* in 1877, at the Hôpital Lariboisière and Hôpital des Enfants Assistés in Paris, by Schlichter† in 1892, and by Riethe‡ in 1897 at foundling hospitals in Vienna, and there were about a dozen sporadic cases in recent literature of diphtheria acquired by sucklings within the first two months of life. In many, but by no means all, of these cases the mother or other members of the same family had recently had diphtheria. In the present case the source of infection could not be determined.

A Case of Enlarged Spleen was shown by Dr. VINCENT DICKINSON. The patient was a female, aged 2 years, born of Italian parents in England. Father had suffered from some venereal disease when aged 23 years. Mother healthy; no miscarriages. Patient was breast-fed for seven months. Always had a large abdomen. When four months old began to refuse food. Admitted December the 15th, 1909. Emaciated, anæmia, rickety thorax, distended abdomen, spleen much enlarged, sharp border, with notch, reaching almost to middle line, and downwards nearly to iliac crest; liver felt below costal border; no marked glandular enlargement. Blood-film showed leucocytes normal in amount, and normal proportion of different varieties. Ten days after admission diarrhœa supervened, and on January the 6th she had an attack of tetany involving the hands and feet, with retraction of the head. The child has greatly improved. The spleen is much reduced in size; Calmette's reaction negative.

A Case of Separation and Displacement Forwards of the Lower Epiphysis of the Femur treated by Plate and Screws was shown by Mr. DOUGLAS DREW. Male, aged 8½ years, was knocked down and run over by a van on November the 30th, 1909. He was admitted to the Queen's Hospital for Children shortly after the accident. The region of the knee was much swollen, and above the swelling there was a depression in the front of the thigh, as though the knee were displaced forwards. The radiograph (taken a few days later, after failure to reduce the deformity under anæsthesia), shows the lower epiphysis of the femur displaced forwards on to the front of the shaft of the bone and rotated through nearly 90°, so that the articular surface looks directly forwards. It is to be noted that the epiphysial line is oblique, downwards and backwards.

* 'Thèse de Paris,' 1877.

† 'Archiv f. Kinderheilk.,' xiv, 1892, p. 129.

‡ 'Wien. klin. Woch.,' 1897, p. 666.

December the 9th.—The fracture was treated by operation, the epiphysis being fixed in position by means of Lane's plate and screws. The limb was placed in a splint bent to a right angle. Massage and passive movement were begun within three weeks, and active movement a week later.

January the 19th (six weeks).—Child can now walk. Movements at knee are good.

Three Cases of Family Idiocy without characteristic Ophthalmoscopic Signs were shown by Dr. F. PARKES WEBER. A female child, aged 14 months, is unable to sit up, and owing to weakness in the muscles of the back and neck, its head falls backwards if not supported. It cannot move about; it cannot even turn or roll itself over in the bed from one side to the other. When it sucks from a feeding-bottle the movements of its jaws appear automatic; they suggest the automatic movements of a frog deprived of its cerebrum. It never attempts to grasp or even to touch anything, not even the feeding-bottle. There is a variable amount of rigidity affecting the trunk and both upper and lower extremities. There is vertical nystagmus at times. Ophthalmoscopic examination shows nothing characteristic of family amaurotic idiocy. The child is practically blind, though it can still perceive a bright light, and will occasionally follow an electric lamp with its eyes. The pupils react promptly to light. There seems to be nothing abnormal in regard to cutaneous sensation, hearing, or taste. The child notices at once if its milk is unsweetened. The disease has been a very chronic one. Weakness in the muscles of the back and neck was observed at three months of age.

Two other children besides the patient have suffered from the same condition.

A Case of Internal Hydrocephalus and Amaurosis without definite Ophthalmoscopic Changes, following Symptoms of Posterior Basic Meningitis, was shown by Dr. F. PARKES WEBER. A boy, aged 4½ months. He had seemed healthy until eight days before admission, when he commenced to suffer from slight convulsions, spasmodic movements of eyes, and diarrhoea. Since admission to the hospital the child has seemed almost blind, and has become increasingly apathetic. There have been no convulsions. Decided retraction of the head was at first very noticeable, but is less marked at present. The head was gradually increased in size. Its circumference on November the 8th, 1909, was 18½ in., and on January the 24th, 1910, was 20½ in. There is often considerable spasticity of the lower extremities.

A Case of Splenomegaly and Hydrocephalus was shown by Dr. F. PARKES WEBER. The patient was a boy, aged 13 months. He was very pale, with a large head, measuring 20½ in., in circumference, and an open anterior fontanelle of about the size of a shilling. The liver extended three finger-breadths below the costal margin. Examination of the blood showed: Hæmoglobin, 29 per cent., red cells, 2,568,000 in the cubic millimetre of blood; white cells, 6300 (small lymphocytes 33 per cent., large lymphocytes 24 per cent., eosinophiles 1 per cent., basophiles 6 per cent.). Although there was no history of congenital syphilis, the treatment adopted has been chiefly anti-syphilitic. The child's condition has slowly but decidedly improved. Wassermann's reaction for syphilis gave a negative result.

A Case of Abnormal Congenital Pigmentation of One Eye was shown by Mr. N. BISHOP HARMAN. A little girl, aged $2\frac{1}{4}$ years. Condition first noticed at age of six months. Right eye: Iris almost black. At the distance of a yard the difference between iris and pupil can scarcely be detected; the sclera is covered with patches of brownish-black pigment. Left eye: White sclera and dark-brown iris. Parents are normal-eyed. This excessive pigmentation is very rare. It is occasionally seen in Dalmatian (plum-pudding) dogs.

Two Cases of Familial Discoid or Coppock Cataract were shown by Mr. N. BISHOP HARMAN. The patients are two sisters, the younger girl aged 7 years, the elder girl aged 9 years. The parents are normal-eyed, and another sister, aged 2 years, is normal. The cataract consists of a small plaque of density, of perfectly circular outline, of uniform density, situated in the lens substance between the lens nucleus and the posterior pole. It is symmetrical in the two eyes. It measures 3 mm. in the elder and 2.5 mm. in the younger girl. The density is so slight that the details of the fundus can be seen through it, and unless the eye is examined by light projected into it by a plane mirror, it is likely to be missed.

A Case of Spastic Diplegia with Mental Defect was shown by Dr. O. K. WILLIAMSON. A girl, aged $10\frac{1}{2}$ years. There is a history of forceps at birth. She did not walk until three years old, and from this time the mother noticed that she walked stiffly. She did not speak until about eight years of age. The girl gives the impression of being mentally defective. She can only say a few words. Distinct loss of power in both arms and also hands. Sensation appears to be normal. Both knee-jerks greatly exaggerated. Extensor response to plantar stimulation on left side, not definitely so on right side. On attempting to grasp an object coarse movements of the arm take place, and the mother has often noticed shaking movements of the limbs. The child's condition has remained unchanged up till the present time.

A Case of Cystic Swelling at the Root of the Nose was shown by Mr. P. MAYNARD HEATH. A boy, aged 5 years. A swelling of the forehead has been noticed for two months. It came on after an attack of chickenpox. A cyst is said to have been removed from the nose about two years ago. There is now a diffuse swelling at the root of the nose. The superficial part is cystic, and it appears to protrude between the nasal bones. It extends upwards between the eyebrows, and ends about the middle of the forehead. The bridge of the nose is widened and there is some irregularity of the nasal bones. Near the tip of the nose, in the mid-line of the dorsum, is a minute opening from which sebaceous matter can be squeezed. It appears to have no connection with the swelling at the root of the nose.

A Specimen of a Strangulated Ovarian Tumour was shown by Mr. J. G. SWANSON. It was removed from a child, aged 2 years, who came to hospital with acute abdominal symptoms. The tumour was removed and the child made a good recovery.

A Case of Pseudo-Hypertrophic Muscular Paralysis was shown by Dr. A. MANUEL. The patient was a boy, aged $8\frac{1}{2}$ years, suffering from general weakness and difficulty in walking. Condition first noticed eighteen

months ago. An interesting feature of the case is that there is no family history of the disease.

A Case of Congenital Aortic Stenosis was shown by Dr. A. MANUEL. Patient was a boy, aged 5 years, with a systolic thrill over both carotid arteries. The cardiac dulness was normal. A loud systolic murmur is audible over the præcordia. This is transmitted to the axilla and back.

A Case of Basedow's Disease in a Boy, aged 8 years, was shown by Dr. ERIC PRITCHARD and Mr. SYDNEY STEPHENSON. His father had been in an asylum for two years. The thyroid was enlarged and there was slight proptosis.

Some X-ray Photographs on the Epidiascope from a Boy, aged 2 years, the Subject of Habitual Constipation, were shown by Dr. SPRIGGS.

A Paper on a Case of Cyclic Vomiting in a Child Associated with Hypertrophic Stenosis of the Pylorus was read by Dr. A. E. RUSSELL.

A Paper on Infant Feeding was read by Dr. DONALD CARTER.

Provincial Societies.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

January the 21st, 1910.

Cases of Epilepsy.—Dr. E. F. TREVELYAN showed two twin Jew boys, aged 13 years, with typical epilepsy. They were the third and fourth of a family of ten children, all of whom had suffered from fits during teething. The fits, which had persisted in these boys and had recently become more frequent, appeared to be controlled by bromides.

Hat-pin in Bronchus.—Mr. BASIL HALL reported that a hat-pin, three inches long, was removed through a low tracheotomy opening in a boy, aged 12 years. The boy was holding the glass head of the pin between his teeth, when he made a sudden inspiratory effort and the pin disappeared. No symptoms occurred, but on placing him before an X-ray screen the pin could be seen lying in the left bronchus, the point being upwards close to the tracheal bifurcation. An attempt to seize the pin with forceps through a low tracheotomy wound failed, but on allowing the patient to become semi-conscious and then tickling the mucous membrane of the trachea the point of the pin appeared momentarily in the tracheotomy opening. On

repeating this manœuvre the pin was seized and removed. The tracheal incision was sutured and the wound closed.

Athetosis and Mental Dulness.—Dr. MAXWELL TELLING showed a child, aged 1 year and 10 months. History: Well up to September, 1909. Four months previously had a single "fit" (unconscious only), and well afterwards. In September, second fit; unconscious some time with paralysis of one side (? right). Since then had been dull, taking little notice, and there had been rapid athetoid movements of limbs. It was doubtful if vision was normal. The movements were especially marked in the lower limbs and toes and on the right side.

MIDLAND MEDICAL SOCIETY.

January the 19th, 1910.

A Case of Urticaria Pigmentosa.—Dr. DOUGLAS HEATH showed a female child, aged $2\frac{1}{2}$ years, suffering from urticaria pigmentosa. The eruption had developed suddenly when the child was six months of age, a considerable number of brownish-red spots being seen on the abdomen, chest, and back. The eruption had continued to appear during the past two years, fresh spots being noticed from time to time. During last summer the eruption had been much more marked than during the winter. The child had suffered from many attacks of diarrhoea, and now and then some sickness had been present. When shown the child was seen to be fat and well nourished and with a healthy colour. The eruption was closely set and symmetrical in the lower half of the abdomen and on the upper adductor region of each thigh. On the upper half of the abdomen, on the front of the chest, on the neck and back the spots were more sparsely scattered, but quite numerous. The face and lower parts of arms and legs were unaffected. The spots were of a brownish-red colour when recent, and distinctly raised above the level of the skin. Older spots were flat and level with the skin and of a dull yellowish-brown colour. The spots were of almost uniform size, being round or slightly oval in shape, and being from one third to half an inch in diameter. When the skin was gently rubbed the spots could be felt to become slightly raised.

A Case of Hairy Mole under Treatment by Radium.—Mr. F. EMRYS-JONES showed a child, aged 4 months, with a hairy mole on the left cheek, in order to demonstrate the curative action of radium. Ten milligrammes of radium were applied over a portion of the mole on December the 16th for one hour and ten minutes. There was a fairly well-marked reaction, resulting in an adherent scab which appeared four weeks after application. At the time the patient was shown the scab had come away, and the area treated showed no pigmentation and all the hair had been removed. The state of the skin was excellent, there being some slight redness which would pass away.

Philadelphia Pediatric Society.

MEETING, January the 11th, 1910, J. CLAXTON GITTINGS, M.D., President.

Paroxysmal Hæmoglobinuria.—Dr. HOWARD CHILDS CARPENTER showed a girl, aged 6 years, with paroxysmal hæmoglobinuria. This is the second winter she has had attacks, which are brought on by exposure to cold. The attacks are typical, consisting of a distinct chill followed by fever, sweating around the head, and the immediate passage of urine containing a large amount of hæmoglobin. She usually has about one attack a week, but during the summer she remained free from paroxysms.

Dr. EMERY MARVEL said that it is difficult to fully reconcile one's convictions to the fact that every case of hæmoglobinuria is a disease entity. It seems more likely to think of the hæmoglobin in the urine as being due to some different exciting cause, that it is the expression of some underlying condition. One naturally thinks of calculus or hydronephrosis with the history given by Dr. Carpenter. Dr. Marvel then asked what investigations had been made to eliminate these conditions; whether there had been an X-ray examination, and whether at any time during the recurrences there had been enlargement of the kidney.

Dr. CARPENTER answered that two X-ray photographs had been made in this case, both of which failed to show either any calculus or enlargement of the kidney. Very few red blood-corpuscles were found in the urine at any time.

Interstitial Pneumonia.—Dr. J. CLAXTON GITTINGS showed a boy, aged 9 years, in whom the diagnosis had been made by exclusion. Six years before he had had measles followed by pneumonia, since which time cough, with more or less sputum, has been continuous, most in winter, least in summer. Two years ago the percussion note over the entire left lung was dull, breath-sounds were somewhat muffled, and moist râles were heard. To-day percussion gives dull tympany and expiration is slightly prolonged, but soft, suggesting emphysema; over the right upper lobe there is also slightly impaired resonance. Fine moist râles are heard over both areas. No sign of cavity or of bronchiectasis can be demonstrated, though the sputum is at times profuse and offensive. His chest is of the "chicken-breasted" type. There are no sweats. Evening temperature rarely exceeds normal. Sputum examinations have always failed to show tubercle bacilli. The boy looks well, having slowly gained in weight, in spite of his poor hygiene and diet, which remains mainly tea, coffee, and fresh bread. Although a tuberculous implantation is to be expected, it is impossible to conceive that the tubercle bacillus is the cause of the widespread lesions which have existed so long. No X-ray examination was ever made.

Dr. A. H. DAVISSON said that he thought the boy much better than he was some years ago. He had not considered the condition tuberculous at any time.

New and Simple Blood-pressure Apparatus.—Dr. DELNO E. KERCHER, by invitation, showed a very simple apparatus consisting of but three parts: a base bearing a glass mercury cistern connected to an upright glass tube lying on a 300 mm. scale for measuring the height of the mercury column; a strong cuff of cloth, 4 by 36 inches, with rubber pneumatic tube

in one end; and a rubber bulb with double valves, and three feet of tubing with connections for attaching to cuff and cistern. It is inexpensive, as there are no ground joints, valves, cocks, or expensive construction on it. It is very easy to manipulate, as follows. The stand with scale attached is placed near the arm to be tested, the scale having first been adjusted so that the 0-line will be at the level of the mercury in the column. The cuff is wound around the arm above the elbow, taking pains to have the pneumatic bag cover well the brachial artery. The cuff is fastened by tucking the free end under the previous turns. The connection in the end of the rubber tubing is now attached to the tubing coming from the cuff; the T-connection is slipped over the top of the cistern. The operator now takes the rubber bulb in one hand in such a manner that the tubing leading to the cistern is readily grasped between the thumb and fore-finger. The fingers of the other hand are free to be applied to the pulse or to manipulate the stethoscope, depending on which method one uses. Air is pumped into the cuff until the pulse is obliterated. The escape of this air is controlled by the pressure of the finger and thumb on the rubber tubing. The point on the scale at which the mercury stands when the pulse first reappears is the measure of the systolic pressure. The air is allowed to escape slowly, noting the point on the scale at which the greatest oscillation of the mercury column occurs. This gives the diastolic pressure. By removing the scale and cistern from the base, inserting corks in the top of cistern and column, this apparatus can be put into any convenient bag and readily carried about. It weighs fourteen ounces.

Dr. GITTINGS considered that this manometer filled a long-felt want of the general practitioner for a practical instrument at low cost.

Non-specific Acute Infections in Young Children.—Dr. HERBERT FOX reported twenty-two cases of non-specific infections, by which term he means, not diphtheria, measles, epidemic meningitis, scarlatina, tuberculosis, and the like; nor has he included infections of the gastro-intestinal tract. The cases were all children under ten years, and all but three under six years. In these cases, eleven of which were broncho-pneumonia, Dr. Fox describes the bacteriologic findings in detail.

Dr. HERMAN B. ALLYN said that broncho-pneumonia was serious for several reasons. It attacks, for the most part, children under five years of age, in whom resistance is abnormally low; it is especially prone to follow the infectious diseases of childhood, and may often be the cause of death. Not only is the disease dangerous to the small patient, but it is very wearing on the physician, as in no condition is it more difficult to make a definite statement as to duration and result. One of those cases of broncho-pneumonia, included in Dr. Fox's list, had a peculiar temperature chart, going from normal at 7 or 8 o'clock to the maximum—100° to 103° F.—by 11 o'clock each morning, gradually declining by night, when the child slept well. This forenoon rise may have been due to the hard and exhausting coughing which followed waking. In sending the specimens to Dr. Fox, Dr. Allyn had hoped that some specific micro-organism might be constantly found; in this he was apparently mistaken. It seems generally to be a mixed infection. He added that it was often wise to change the patient from one room for several hours every day, either to another, cool room, or to out of doors. He finally called attention to the importance of keeping the mouth clean.

Dr. W. M. L. COPLIN spoke of the problem of succeeding infections in

broncho-pneumonia. One infection appears to follow the other, several different infections often being found simultaneously as the disease progresses. This makes the outlook for vaccine therapy most discouraging; though any one strain may be combatted, the susceptibility to infection remains and other micro-organisms thrive. Dr. Coplin hesitated to discuss the relation between the bacteria of the pharynx and those found in infections of the trachea, bronchi, and lungs. There does not appear to be any necessary connection between the flora of the pharynx and that of the trachea, and consequently deductions from sputum examinations might be very misleading. Agonal infections which may appear suddenly and spread quite actively are frequently caused by most rapidly growing bacteria, and almost if not quite invariably are present in fatal cases; such facts render the results of post-mortem bacteriological examination also of doubtful value.

Dr. GITTINGS thought that one feature of the protracted cases of broncho-pneumonia which is of much importance was the difficulty in determining the onset of empyema. In some of these, exploratory puncture must be attempted several times before fluid is found. In private practice the objection to this procedure at times puts the physician at a distinct disadvantage. In view of the inefficiency of treatment, it is greatly to be hoped that vaccine therapy may prove to be of great value.

Dr. Fox added that vaccine therapy had better be let alone in broncho-pneumonia until we know more about vaccine treatment of children and the bacterial cause of the disease. May broncho-pneumonia not be a general instead of a local infection? In that case, should not a blood culture be made early in every case?

Dr. GITTINGS then delivered the Annual Presidential Address.

Société de Pédiatrie, Paris.

December the 21st, 1909.

The Detection of Blood in the Stools.—M. TRIBOULET finds the reaction to phenolphthalein superior to that with guaiacum and benzidine, the risk of error being less, and also because it facilitates the discovery of traces of blood of digestive origin and clinically unsuspected, as in cases of (1) old-standing purpura, Barlow's disease; (2) violent intestinal reactions with ecchymoses, acetonaemic disorders in young children, entero-colitis in older children simulating appendicitis; (3) various intestinal complications in pneumonia, measles, scarlatina, and diphtheria. Intestinal discharges, like those met with in certain cases of uræmia, connected with congestion of the digestive mucous membrane and bloody exudation mixed with the stools, are only detected in most cases by the red reaction with phenolphthalein.

Case of Trichotillomania.—MM. VOISIN and CLARAC showed a case of this affection in an epileptic idiot, aged 8 years. Since the age of two and a half years she had, whenever unoccupied, torn out her hair, always from the same area. Similar cases of auto-epilation are often met with in general paralysis or dementia, but are rare in idiocy.

Warty Nævus in Lines.—MM. APERT and PRUVOST showed two cases, one of whom showed Mongolian signs. In one case the eruption was

curiously localised and followed the distribution of the cutaneous nerves. Both had been treated with some success with large daily applications of pure glycerine. Improvement was noticed at the end of a week.

Nodding Spasm.—M. BARONNEIX showed a child, aged 15 months, who had from the age of two months transverse movements of the head and nystagmus. Examination of the fundus oculi excluded cerebral tumour, and the case seemed one of a special type analogous to epilepsy. It was noteworthy that this infant was nursed by a woman whose husband was the subject of several forms of tic.

Hæmorrhage from the External Iliac from Contact with a Drainage-tube.—MM. SAVARIAUD and BEAUVOISIN related a case of a child operated on for appendicitis complicated by peritonitis. The cavity was drained by means of large rigid tubes. On the sixteenth day bleeding occurred, which necessitated ligature of the external iliac artery above and below the arterial wound. Recovery ensued, and the case shows the advisability of using soft drainage-tubes in such cases, and preventing their coming in contact with the artery.

Muscular Atrophy of Charcot-Marie Type.—MM. DELILLE and DEBIÉ showed a case which was interesting owing to the age of onset—4 years. The disturbance was purely motor, *main en griffe* being well marked.

Cerebral Tumour.—M. GENEVRIER showed a large tumour which had invaded the whole of the protuberance and peduncles, the greater part of the optic thalamus, and the central nuclei of the right hemisphere. On the same side the temporal and occipital lobes and a part of the cerebellum were involved. The central nuclei and temporal lobe of the left side were encroached upon. In spite of this enormous extension there was no clinical sign of cerebral mischief. There existed a state of advanced cachexia without any motor, sensory, or psychic trouble. The tumour was an infiltrating glioma, but not completely destructive, which explained the relative integrity of the cerebral functions.

Severe Form of Rickets with Transitory Symptoms of Pseudo-leukæmia.—M. LEON TIXIER related the case of a child, aged 15 months, in a state of profound cachexia. The body-weight fell below 5 lb. Rickets would not account for the whole of the symptoms, and there was neither tuberculosis nor syphilis. The author noticed during the course of the illness a marked increase in the volume of the spleen, and the appearance in the peripheral vessels of a large quantity of nucleated red cells.

Latent Tuberculous Peritonitis in an Infant aged 6 months.—MM. LEON TIXIER and J. TROISIER drew attention to the rarity of localised tubercular lesions at this age. The diagnosis, easy enough in well-marked forms, was almost impossible in latent forms. Confusion with the large belly of rickets is frequent, and it is sometimes mistaken for megacolon or Hirschsprung's disease.

The Epidemic of Measles at Thiais.—M. VARIOT described the conditions under which the epidemic occurred, and attributed its severity to overcrowding and insanitary conditions of the localities involved.

Abstracts from Current Literature.

Medicine.

Early symptoms of poliomyelitis (*'Arch. of Pediat.,'* xxvi, 1909, p. 328).—**L. E. La F  tra** writes from his experience of 63 cases in the New York epidemic of 1907. The diagnosis was often difficult owing to the presence of symptoms simulating meningitis or neuritis. Thus restlessness and irritability were present in 37 cases, nuchal rigidity in 11, headache in 10, apathy in 10, stupor in 4, and pain and tenderness in the affected limbs in 32. Lumbar puncture was done in 14 cases. In every case the fluid was clear and sterile. It was under no pressure in four cases, slight pressure in five, and increased pressure in five. In only one case were any cells—a few mononuclears—found.
J. D. ROLLESTON.

Epidemic infantile paralysis (*'Arch. of Pediat.,'* xxvi, 1909, p. 364).—**A. Hymanson** records five unusual cases observed in the New York epidemic of 1907. Three showed facial paralysis, one fatal laryngeal and diaphragmatic paralysis, and one paralysis of the palatal and abdominal muscles.
J. D. ROLLESTON.

Occurrence of pepsin in the infant stomach (*'Arch. of Pediat.,'* xxvi, 1909, p. 341).—**W. R. Ramsey** made forty-seven examinations of gastric juice in infants whose ages ranged from eleven days to ten months in Heubner's clinic at the Charit   in Berlin. His conclusions were: (1) The gastric juice of normal breast-fed infants contains pepsin. (2) The stomachs of infants suffering from acute dyspepsia usually contain pepsin. (3) In pylorospasm there is an abnormally large quantity of pepsin and HCl. (4) Pepsin is frequently absent from the stomachs of chronic atrophic infants, but returns with improvement of health and gain of weight. (5) The gastric juice of normal infants can convert proteids into peptone without any other acid than those present normally in the stomach. (6) The pepsin is capable of active digestion when lactic acid but no HCl is present. (7) Both HCl and lactic acid may be present in the gastric juice without pepsin, and pepsin may be present without HCl or lactic acid.
J. D. ROLLESTON.

Congenital heart disease (*'Arch. of Pediat.,'* xxvi, 1909, p. 368).—**A. Hand** (jun.) records a case in a coloured boy, aged 3 years, whose symptoms were those of angina pectoris. During life the heart was found to be enlarged, but there was no murmur. The autopsy showed defect of the ventricular septum, hypertrophy of the ventricular wall, especially of the left, and absence of the pulmonary artery. The thymus was also enlarged.
J. D. ROLLESTON.

Angioneurotic   dema (*'Arch. of Pediat.,'* xxvi, 1909, p. 372).—**S. Seilikovitch**.—This condition is characterised by the appearance of a circumscribed   dema of the skin or mucous membranes without any constitutional disturbance. All reported cases have occurred in neurotic persons. The exciting causes are exhaustion, cold, alcohol, trauma and gastro-intestinal disturbances. When the stomach is involved the symptoms are nausea, vomiting and colic. Seilikovitch regards cases of periodic

recurrent or cyclic vomiting and hydrops articulo-rum intermittens as due to angioneurotic oedema. His own case is the first on record of a death from this cause at so early an age. A female child, aged 3 weeks, developed a swelling of the genitals, which was relieved in a day by the application of camphorated oil. Subsequently the right side of the face and both arms became swollen. Death, which occurred at the age of five weeks in a convulsion, was preceded by reappearance of oedema of the labia majora and by a circumscribed swelling on the left calf. The mother was of an excitable disposition, and another of her children had had convulsions on the eruption of each tooth.

J. D. ROLLESTON.

Pick's disease (*'Pediatrics,'* 1909, p. 81).—**J. L. Rubinstein**.—Pick's disease is an abbreviation for pseudo-cirrhosis of the liver associated with polyserositis, the most striking lesion being a white glossy thickening of the peritoneal covering of the liver (sugar-coated liver). After relating the case of Professor Finsen, who made numerous observations and experiments on himself while suffering from this disease, Rubinstein records a case in a boy, aged 3 years. The first symptoms were swelling and tenderness of the abdomen accompanied by dyspnoea. Ascites with enlargement of the liver and spleen and a right pleural effusion were found. The urine contained a slight trace of bile, but there was no jaundice. Tuberculosis was suspected, but the ophthalmic reaction was negative. A few months later some fluid was detected in the pericardium. As in Finsen's case, the effusions disappeared under a salt-poor diet; increases in the intake of sodium chloride caused the ascites to reappear, but the pleural and pericardial effusions did not recur. Necrosis of the right tarsus, which was probably of tuberculous origin in spite of the negative tuberculin reaction, subsequently developed. When last examined the liver and spleen were larger, but there was no anasarca, ascites, nor any other effusion, and the general condition had improved. Salt-poor diet and tonic treatment seem to have been beneficial.

J. D. ROLLESTON.

The hard curds of infant stools (*'Arch. of Pediat.,'* xxvi, 1909, p. 241).—**T. S. Southworth** and **O. M. Schloss** dispute the statement made by Czerny and Keller that the hard curds of infants' stools contain no proteid but are simply masses of soaps and fatty acids. They examined typical curds in seventy-five stools passed by thirty-eight infants, and found that the proteid percentage ranged from 0.90 to 4.0. The hardness was found to be due to the relatively greater amount of protein, while the softer stools consisted mainly of fatty acids or fat.

J. D. ROLLESTON.

Endocarditis in typhoid fever in children (*'Thèses de Paris,'* 1908–1909, No. 4).—**Stepowski** has collected sixteen cases from literature in children whose ages ranged from three to fifteen years, including an original case observed in Mery's service at the Hôpital des Enfants Malades. Endocarditis is a rare complication of typhoid fever, but is a little commoner before fifteen years than later. It is most frequent at puberty, and is commoner in girls. The mitral valve is usually affected. In six cases endocarditis was associated with a pre-existent myocarditis and in four with pericarditis. The complication is rarely due to typhoid bacilli, but is usually the result of secondary infection by strepto- or staphylococci. It may often escape detection. The prognosis should be guarded owing to the possibility of cerebral and pulmonary embolism.

J. D. ROLLESTON.

Diphtheritic tracheo-bronchitis (*Thèses de Paris*, 1908-1909, No. 364).—**P. C. Fourest** records thirteen cases, including seven original ones from the fever hospital at Algiers. Only three of the thirteen recovered. The physical signs are: dulness of irregular distribution on both sides of the chest, absence of vocal resonance, diminution or loss of the vesicular murmur and the presence of coarse and sub-crepitant râles. The respiration is rapid, the dyspnoea continuous and rarely complicated by attacks of suffocation. The general state is one of toxæmia. In addition to early and massive doses of serum, early tracheotomy is advisable to diminish the danger of pulmonary complications, and to facilitate exploration of the trachea.

J. D. ROLLESTON.

Still's disease (*Arch. of Pediat.*, xxvi, 1909, p. 417).—**D. Hingston** records two cases: (1) A girl, aged 3 years; sudden onset with swelling and pain in right knee, lasting for a week. Diphtheria then developed and both knees and ankles became affected. Next year the elbows and wrists were attacked, and the fingers showed a smooth painless swelling. The supratrochlear, inguinal and cervical glands, as well as the spleen, were enlarged. Treatment by fresh air, arsenic, massage, and passive movement of the affected joints was followed by complete recovery. (2) A girl, aged 2½ years, began to complain at intervals of pain in the right knee. The attacks subsequently became more frequent and severe, and the joint became swollen and flexed. In the course of the next two years the other knee, ankles, wrists, elbows, hands, cervical spine, and temporo-maxillary joints became affected. The lymph-glands and spleen were enlarged, and there was slight exophthalmos. Considerable improvement followed the use of arsenic, massage, and warm baths, but the treatment was not regularly carried out, and relapses were frequent.

J. D. ROLLESTON.

Cerebral diplegia (*Glasgow Med. Journ.*, July, 1908).—**R. Barclay Ness** reports the case of cerebral diplegia in a girl, aged 6 years. The child was small and puny at birth, and artificial respiration and other means were used to resuscitate her. Stiffness of the back and limbs was first noticed when the child was one year old, but it was possible that the spasticity was present even earlier as the child could never sit easily on the mother's knee, and any attempt to place her in this posture resulted in the back becoming stiff and the legs extended. There was no history of convulsions. The chief feature of the physical condition was more or less generalised rigidity, most marked in the legs. There were distinct kyphosis, some flexion and adduction of the arms, flexion and adduction of the thighs, with extension of the legs at the knees. The child could not stand or walk, because the legs in the extended position crossed so that one could not be brought in front of the other without great difficulty, and in the attempt the child required to be supported by the armpits. The muscles were well developed and firm from their constant state of spasm. The knee-jerks were greatly exaggerated, ankle clonus was present and Babinski's sign well marked. The arms were the seat of spasm also, but to a much less extent than the legs. There was athetosis of the right hand, which was easily brought out by any attempt of the child to grasp some object. The head was flattened in the posterior aspect, its circumference being eighteen and a quarter inches. The general intelligence of the child was a little below the normal. The tongue did not protrude, the palate was a little highly arched and the teeth were good. The sight was normal, there was neither nys-

tagmus nor strabismus, and the fundi were normal. Hearing was good, speech a little indistinct, and habits cleanly. She weighed 2 st. 4 lb., and was 3 ft. 4 in. in height. The following causes for the condition were suggested: The premature birth was due to some toxic agents, which also exerted their baneful influence upon the nervous system, causing actual degeneration of the cortical centres during foetal life. The toxic agents might have produced, on the other hand, a lowering of the vitality of the cells, in which case the child would have been born simply with an inherited tendency to degenerative changes taking place. Another possible cause of the cerebral diplegia might have been the asphyxia neonatorum which had led to cortical hæmorrhage, with destruction of the cortical centres and secondary degeneration of the motor tract.

JAMES E. H. SAWYER (Birmingham).

A case of bronchiolectasis ('*St. Thomas's Hosp. Rep.*,' vol. xxxv).—**H. R. Dean.**—A boy, aged 6 years. The child was said to have had pneumonia when one year old. He was admitted with pain in the chest and shortness of breath of three weeks' duration. He presented the usual signs of broncho-pneumonia. The child had several attacks of severe dyspnœa, after one of which he died. He was heard to whoop on several occasions. At the post-mortem slight recent pleural adhesions were found in both sides. The surface of the lungs showed numerous bullæ, and on section they had a honeycomb appearance. The cavities varied in size and appeared to communicate with the bronchi. There was no evidence of tuberculosis. Consolidation of a broncho-pneumonic type was present.

JAMES E. H. SAWYER (Birmingham).

Analysis of two hundred autopsies on infants ('*Montreal Med. Journ.*,' September, 1909).—**McCrae.**—Seventy-eight per cent. occur in the first three months of life. Bronchitis occurred in 31 cases, pneumonia in 69, most of these being lobular, it being lobar in 17 cases only, some of which were probably fused broncho-pneumonia. The pleura was not involved in the majority. Six cases had pleural effusion, small in amount; empyema was only seen once. Collapse in small amount was frequent, but only to a serious extent in a very small fraction. Generalised tuberculosis was found once only and emphysema in 9 cases. Gastritis was seen in 40 cases, mostly with intestinal disease, entero-colitis in 35, small intestine alone in 22 cases, and the colon alone in 13. Peritonitis occurred in 4 cases, usually due to umbilical infection. Splenic enlargement was seen in 16 cases. Hæmorrhagic areas in the adrenals were noted in 3 cases. Uratic crystals were found in the kidneys of 52 cases. Two cases of transposition of organs, one with pulmonary atresia and the second with patent foramen ovale and interventricular septum. Patent foramen ovale was found in 83 cases, patent ductus arteriosus in 19. Hæmatomata occurred on the mitral valve 12 times and on the tricuspid 5 times. Intra-cranial hæmorrhages due to birth injuries were found in 3 cases. J. PORTER PARKINSON.

Ulcerative stomatitis associated with Vincent's bacillus ('*Montreal Med. Journ.*,' August, 1909).—**Cushing** illustrates the association of a mildly contagious form of ulcerative stomatitis with the presence of Vincent's bacillus, *i. e.* with the symbiosis of *Bacillus fusiformis* and *Spirochæte dentium*. These two organisms are almost invariably found together in masses, so that a smear from the lesion looks like a pure culture. The

spirochæte is supposed, but not proved, to be a stage in the life of the former organism. He claims that these two diseases are clinical entities, and are mildly infectious, and the characteristic organisms are found in almost pure culture in the lesions, especially close to the normal tissues. He quotes an epidemic in the Children's Memorial Hospital, in which two cases followed the initial one and the characteristic bacilli were found in all, and a second one of two cases in an orphan asylum in Montreal; in these latter potassium chlorate acted like a specific when local treatment had been ineffectual.

J. PORTER PARKINSON.

Diphtheria of the intestines (*Montreal Med. Journ.*, August, 1909).—**McKechnie** records the case of a child, aged 6 years, taken ill during a sea voyage with symptoms of mild dysentery, blood, pus and mucus being passed with the stools. After three weeks examination showed enormous quantities of streptococci, which rapidly disappeared under treatment with streptolytic serum, but the symptoms continued. Finally, cultures showed Klebs-Loeffler bacilli. An anti-diphtheritic serum was used with immediate improvement, and two days later a complete cast of the bowel four inches long was passed; this was shown to be a true diphtheritic membrane. The patellar reflexes were absent, and for a fortnight there was paralysis of the anus, which recovered.

J. PORTER PARKINSON.

Hæmatemesis and melæna in a child aged 10 years (*Journ. de Med. de Bordeaux*, August, 1909).—**Corimand** relates the case of a boy who, when in apparent health, suddenly vomited clots of blood. The next day he again vomited blood and passed *per anum* a quantity of liquid and clotted blood. Recovery gradually ensued, and six weeks later there was discovered a splenic enlargement reaching as far as the umbilicus. The case is mentioned owing to the rarity of severe hæmatemesis and melæna at this age, and the author makes no suggestion as to the nature of the disease.

J. PORTER PARKINSON.

Some unusual cases of disease in the first days of life (*Allg. Wien. Med. Zeit.*, March 9, 1909).—**Galatti** mentions among the cases seen in 1908 were hæmorrhagic diathesis in an infant which lived nine and three quarter hours: hæmorrhage from the umbilical arteries; uranoschisma leading to death in a week; melæna neonatorum which recovered under treatment. This consisted of several injections into the skin of the abdomen of 10 cm. of Merck's sterilised gelatine and every hour one teaspoonful of a 1 per cent. solution of gelatine. On the next day three injections each of 20 cm. of physiological salt solutions. The child was kept warm. There was also a case of peritonitis, which occurred on the third day, and was shown at the post-mortem to be the sequel to an infection of the cord.

M. D. EDER.

Syphilitic infection in children (*Intercol. Med. Journ. of Austral.*, March 20, 1909).—**Bennie** considers that the child has a syphilitic taint if either of the parents has ever had syphilis. He states that 10 per cent. of the Australian children are infected, and that for these children the chances of dying before puberty are seven times greater than for the non-syphilitic. Infected children should be treated in all their illnesses for the syphilitic factor, and surgeons should, before operating, submit these cases to a course of anti-syphilitic treatment.

M. D. EDER.

Barlow's disease (*'La Semana Med.,'* April 22, 1909).—**Possi** regards this disease as very uncommon in South America; cases have been published of its presence in Montevideo, Brazil, and the Argentine. In the last country thirteen cases have been published, four of them having occurred at the eighth month. Six of these infants had been previously fed on preserved beans, five at the breast, and one on boiled cow's milk. Under treatment recovery was very rapid, as was found in other countries. M. D. EDER.

A rare case of infantile syphilis (*'Brazil-Medico,'* April 8, 1909).—**Moncorvo Filho** reports a case where the mother of a healthy child suckled the child of a sick neighbour for a few days. Three weeks later the mother developed a hard chancre on the breast and in turn affected her own healthy suckling. The signs of syphilis were unequivocal. M. D. EDER.

Speech defects in children (*'Allg. Wien. med. Zeit.,'* April 13, 20, 27, 1909).—**Stern** draws a clear distinction between stammering and stuttering. Stammering is the mispronunciation or a failure to pronounce certain sounds—a *t* instead of *s* and so on. Stammering is to be cured by placing the lips, tongue, or teeth, according to the particular defect, in the right position. Small rods are very useful for this purpose. It is of no use merely uttering the sound for the child to attempt its repetition. Some cases depend upon nasal and dental defects, which must be first corrected by surgical or other means. Stuttering is a more difficult and very widespread defect. Following Kuszmaul he regards it as a spastic co-ordination neurosis dependent upon a spasm of the muscle setting in before or during speech. Speech requires the use of the muscles of breathing, sound, and articulation; spasm may occur in one or more of these groups. Stuttering is a not infrequent sequel to some acute zymotic disease; this is important from the point of early recognition and cure. It is a highly infectious disease, and some recommend that stuttering children should be excluded from the ordinary classes. It cannot be regarded as hereditary, but there may be some predisposition. There is no connection between stuttering and mental development; stuttering gives rise to anxiety and this reacts upon the speech defect. No case of stuttering resembles another; each one therefore requires careful psychological analysis in order to effect a cure. Like all other speech defects it is commoner in males. In quite young children it may be sufficient for a cure to establish right methods of breathing, to make easy syllable exercises. But in older children specific and general treatment is required. Prognosis is very good with proper treatment. The paper concludes with some reference to other speech defects. M. D. EDER.

Case of congenital myatonia (*'La Clin. Infant.,'* July, 1909, No. 13, p. 398).—**Lereboullet** and **Beaudoin** report the case of a male infant, aged 11 months, with atony and paralysis having their maximum intensity in the muscles of the neck. The paralytic symptoms showed no tendency to increase after birth. The diagnosis was amyotrophy of Werdnig-Hoffmann type or congenital myatonia of Oppenheim. There was hard œdema. Death occurred very rapidly, with hyperpyrexia and dyspnoea due to a pulmonary sepsis. The paralysis was general, but had its maximum intensity in the motor muscles of the head. This localisation is abnormal, as usually the lower limbs are most affected. Another noteworthy point was the presence of tonic and clonic convulsions, during which the flabbiness disappeared and gave place to contraction. Sorgente has noticed similar facts (*vide* 'La

Pediatrica,' May, 1906). The brain and spinal cord were found normal when examined by the Nissi and Marchi methods. There was no diminution in size of the cells of the anterior cornua; the meninges and roots were normal. The muscles, on the other hand, showed undoubted alterations, especially those of the neck. Here sections showed marked lesions of the muscular fibres, which were of very unequal bulk; some very large, others very small, and there was considerable nuclear proliferation and in places invasion of the muscle tissue. Liver, thymus, and supra-renals were normal, and with the exception of a slight glomerular sclerosis, so was the kidney. The thyroid was well developed, with large gland-follicles stuffed with colloid substance.

VINCENT DICKINSON.

Staphylococcic scarlatinal meningitis ('*Lyon Méd.*,' 1909, No. 32, p. 225).—Weill and Mouriquand report the case of a boy, aged 3½ years, admitted with scarlatina. Convalescence was interrupted by intense and persistent coryza, with some rheumatic manifestations. After a deceptive improvement symptoms of meningitis occurred, ending in death. The meningeal pus, as did the nasal discharge, gave an almost pure culture of *Staphylococcus albus*. Both middle ears contained pus, but the authors are of opinion that this lesion was not the direct cause of the meningitis, but the purulent nasal discharge. Injections of anti-streptococcic serum were used as a routine measure in post-scarlatinal infections. Anti-staphylococcic serum was not tried. Lumbar puncture gave no diagnostic information.

VINCENT DICKINSON.

Hemiplegia in scarlatina ('*La Clin. Infant.*,' July, 1909, No. 14, p. 420).—Gouget and Pélissier report the case of a girl, aged 6 years, attacked with hemiplegia on the fourteenth day of a severe attack of scarlet fever, when the temperature had almost fallen to normal—37·7° C. There were no premonitory symptoms, but after a short convulsive attack a complete left hemiplegia was noticed which lasted more than five months, without contractures but with increased reflexes. With regard to the cause there was nothing to give rise to embolism, and the absence of fever excluded a focus of acute encephalitis; it lay, therefore, between thrombosis and hæmorrhage. The latter was negated by the initial convulsions, the age, the absence of loss of consciousness and of predisposing cause such as nephritis. Scarlatinal paralysis occurs in severe cases and during the period of convalescence probably in connection with nephritis. Convulsions are usual at the onset; the paralysis is nearly always complete. Prognosis is unfavourable, most cases passing into a chronic state.

VINCENT DICKINSON.

Subacute tetanus; intra-venous and subcutaneous serum therapy; cure ('*La Clin. Infant.*,' July, 1909, No. 14, p. 428).—L. Martin and H. Darré report the case of a boy, aged 8 years, with a wound on the buttock caused by falling on a rake nine days previously; he had slight trismus and slight rigidity of the nuchal and lumbar muscles. Twenty c.c. anti-tetanic serum were given subcutaneously. The next day all the symptoms were worse—there was marked opisthotonos: 80 c.c. were given, intra-venous, enemas of choral 4 grm. in twenty-four hours, and bromide internally in the same quantity. The same evening there was marked improvement, and 40 c.c. were again given subcutaneously twelve hours after the intra-venous injection. The next day the injections were suspended but the drugs continued. This was followed by a relapse and they had to be resumed. In

eight days the child, who weighed 20 kilog., had 520 c.c. of serum, which were well borne; there was no albuminuria at any time. The symptoms of tetanus were in no way modified by an attack of broncho-pneumonia which supervened and which threatened to prove fatal. VINCENT DICKINSON.

Obliteration of the ductus choledochus (*'Med. Press,' August 4, 1909*).—**Goldreich** saw an infant, who had been jaundiced from birth, and whose stools were acholic. Later the child was seized with panophthalmitis and sepsis, from which it died in the seventh month. The post-mortem showed that both the ductus choledochus and the ductus hepaticus were totally obliterated, and the lesions appeared to have been congenital.

T. R. WHIPHAM.

Pathology.

On the relationship between the quantity of CaO in human milk and the hæmoglobin value of the infant's blood (*'La Pédiatrie,' August, 1909, No. 8, p. 594*).—**C. M. Oneco** states as the result of his experiments that—(1) the quantity of CaO contained in the milk of the nurse seems to be in direct proportion to the number of red corpuscles and hæmoglobin value of the blood of the nursed infant. (2) The blood of infants reared at the breast of women whose milk contains a high percentage of CaO contains a larger number of red cells and higher hæmoglobin value, and the blood of those reared by women whose milk contains a less percentage is poor in globules, etc. (3) The calcium content of human milk seems to proceed in great part from that contained in the organs of the woman herself, and its quantity is only influenced to a very limited extent by the organic calcium contained in the food, and is not modified at all by the administration of artificial preparation of calcium. (4) The calcium content of the nurse's milk should be ascertained whenever any alteration is found in the blood of an infant at the breast. VINCENT DICKINSON.

Therapeutics.

Subcutaneous injection of sea-water (*'Arch. of Pediat.,' xxvi, 1909, p. 352*).—**T. Le Boutillier** records twenty-one cases of malnutrition in which this method, introduced by Quinton, was used (*vide BRITISH JOURNAL OF CHILDREN'S DISEASES, 1907, p. 460*). The amount injected varied from 10 c.c. to 30 c.c. The injections were given as a rule three times a week, in acute cases daily for five or six days. In each case marked improvement in the gastro-intestinal condition and a gain in weight from half an ounce to one ounce daily were observed. J. D. ROLLESTON.

Treatment of staphylococcus infection (*'Pediatrics,' 1909, p. 155*).—**A. C. Soper** treated twenty cases of staphylococcus infection, the majority of which were furunculosis, in children whose ages ranged from two months to seven years, by the injection of dead staphylococci. The treatment was given independently of the opsonic index, and was regulated by the clinical manifestations only. Most of the cases recovered rapidly without recurrence. J. D. ROLLESTON.

Anti-meningococcic serum in acute cerebro-spinal meningitis (*'La Clin. Infant.,' August, 1909, No. 15, p. 466*).—**Eschbach**, of Bourges, reports

two unsuccessful cases which were of the fulminating type. There was no epidemic at the time, but one of the children had been operated on three weeks previously for adenoids, and it is possible that the raw surface favoured infection. Dopter's serum was used in addition to hot baths, frictions with collargol, artificial serum, etc. The presence of Weichselbaum's coccus was not confirmed. In one case the turbid cerebro-spinal fluid showed changed polynuclears but no micro-organisms, in the other case an extra-cellular diplococcus, decolorised by Gram's method. In one case the serum was only injected on the fifth day of the illness; in the other an intra-spinal injection was made twenty-four hours after the onset of the illness, but the child died the same evening thirty-six hours after the appearance of the first symptoms. This is explained by the mode of action of all therapeutic serums; their effect requires at least twelve to twenty-four hours, and shows the necessity of resorting to it early in the case.

VINCENT DICKINSON.

Otology, Laryngology, and Rhinology.

On otitis media varicellosa (*Ally. Wien. med. Zeit.*, February 9, 16, 23, March 2, 1909).—**Jacod** gives the details of nine cases of varicella which give rise to otorrhœa of varying severity. In some cases this was the only complication, but in others there were skin complications or nasal and buccopharyngeal inflammations, with tonsillitis. In some cases the varicella attacks an ear which has been subject to a middle-ear disease and there is then an acute case of otitis media. As a rule the otorrhœa from varicella is not as serious as that caused by scarlatina and diphtheria. But a differentiation must be made between the inflammation of the ear that occurs at the beginning of a varicella and that which develops during complications of the skin. The former is usually mild and may heal itself. Those which follow some skin complications are always more serious and recovery is always tardy. The best treatment is that of prevention; in varicella patients there are two dangerous periods for the ear. At the time when there is a buccopharyngeal inflammation care must be taken to keep the oral passages clean; the vesicles should be washed with weak solutions of salicylic acid. During the course of the illness the cleanliness of the skin should be watched. Where many cases are treated the new cases should be separated from those in an ulcerative stage, and sterilised underclothes, etc., should be employed. Varicella, which is such a benign illness, should not through failure in treatment become the source of dangerous conditions.

M. D. EDER.

Surgery.

Lung decortication and thoracoplasty for persistent thoracic sinus (*Annals of Surgery*, June, 1909).—**Charles N. Dowd** presented at a meeting of the New York Surgical Society on March 10, 1909, six patients (children) illustrating the results of this procedure. He gives details of the histories of the patients. One case was that of a boy, who is now aged 17 years, and who had his first operation for empyema in 1897. A few months later a second operation was done in one of the City hospitals and tuberculosis was found in the pleura. The wound healed but opened again, and in October, 1899, Dowd excised a portion of five ribs, the fourth to the eighth, and corresponding portions of the chest-wall. In November, 1900,

a sinus still persisting, the sinus was exposed and the pulmonary pleura incised and stripped back. This lung expanded well when liberated from the pleura, although it had been confined for more than three years. Final healing took place about a year and a half later and he has remained in good health ever since. The circumference of that side of the chest is two inches less than the other and he has about half an inch expansion with his respiration. He is in good health, has no signs of tuberculosis and no spinal curvature. The other cases were somewhat similar. In a recent case, instead of resecting portions of the ribs a cut was made along the anterior axillary border, the wound was retracted, the pulmonary pleura was incised, and the chest-wall and ribs brought together again, careful union being made by chromic gut, with the exception of one rib where silver wire was used. The likelihood of a good chest is better than in the other cases where resection of more ribs have to be made, but the procedure is manifestly only applicable to those cases which show good lung-expansion. In some of the cases efforts were made to expand the lung by using forced expiration aided by Wolf bottles.

J. ALLAN (Edinburgh).

Gupshot wound of the brain with remarkable recovery of function (*Annals of Surgery*, June, 1909).—W. J. Taylor showed at the Philadelphia Academy of Surgery a girl, aged 2 years, who was first seen by him on April 1, 1907. On Sunday, March 10, twenty days before, while she was lying in bed her little brother fired a thirty-two calibre revolver within a short distance of her head. The ball entered half an inch to the left of the middle line directly over the glabella, and must have passed through the frontal sinus and directly backwards and upwards, and emerged from the skull on the right side over the parietal protuberance at a point two and a half inches from the middle line and two inches back of the mid-auricular line. The ball was found on the pillow by the side of her head. There was tremendous hæmorrhage and unconsciousness for two hours. There was total palsy of the left side, and on Tuesday, March 12, she had a series of general convulsions which continued at intervals till the Friday. She regained power of the left leg, but on April 1 there was still total palsy of the left hand and arm. There was apparently no alteration in sensation or in eyesight or taste. On April 2, as both the wounds of entrance and exit were suppurating and at the wound of exit there was quite a distinct swelling, she was given ether and the wound of exit explored. There was a hole in the skull about three quarters of an inch in diameter through which was protruding quite a distinct fungoid mass. At the side of this was a piece of bone detached from and standing at right angles to the skull. This was removed and a few jagged fragments of bone cut away. Up to this time she had been extremely restless and unable to sleep, but almost immediately she quieted down and had good and restful nights. Very quickly she regained the power and control over the left arm. The improvement continued and her convalescence was rapid and uninterrupted. On May 1 the wound of exit discharged some pus, but from that day to this she has remained perfectly well. There is no palsy, no evidence of any alteration in her intelligence or power of motion, and there have been no convulsions or other evidence of brain irritation. Taylor reported this case as a remarkable example of the tolerance of the brain to mechanical interference. This bullet must have passed through the frontal sinus, through the temporal bone and through the substance of the parietal lobe to its exit just posterior to the parietal eminence. The soft bones of the

skull of a child of this age could not have presented sufficient resistance to have deflected the bullet in any way.

J. ALLAN (Edinburgh).

The treatment of club-foot (*Medicin. Corresp. Blatt des Würt. ärztz. Landesvereins*, March 20, 1909).—**Mendler** regrets that good results are not more frequently obtained, since in the modern methods of treatment there should be few failures. He gives some illustrations of the success that follows the so-called bloodless method, that is, removing nothing of the bony structure. Under deep narcosis the foot is manipulated until it can be brought without difficulty into the required shape. He nearly always accomplishes this with the hands without any screw; this requires a certain amount of physical strength. Tenotomy of the Achilles tendon is the *last* act of the operation; it is a great mistake to do it earlier. He emphatically protests against the idea that this tenotomy can by itself cure any case of club-foot. In many of the less severe forms tenotomy is unnecessary. Congenital cases are put in plaster for about nine months; there is no occasion for any gymnastic after-treatment. Children are not treated till after the first year.

M. D. EDER.

Foreign body in the larynx (*La Semana Med.*, May 13, 1909).—**Núñez** relates the history of an infant, aged 13 months, who had a fit of suffocation after taking some broth. On a rapid examination a foreign body could be palpated within the larynx. Tracheotomy was at once performed, and on the following day, when the infant's condition was greatly improved, the foreign body was removed by an instrument inserted through the wound and was received by a finger in the mouth. It was an irregular-shaped piece of bone.

M. D. EDER.

The immediate treatment of infantile paralysis of upper limb (*Int. Med. Journ.*, May 20, 1909).—**MacKenzie** recommends immediate and absolute rest. During twelve months he treated eighteen cases in this way. Ten cases were treated within ten days of onset of illness; they were immobilised without massage for from ten to twelve weeks; nine have recovered. Three cases were seen within four weeks of the onset, and in all there is recovery in the reclining position. Five cases have a more than three months' history; in those return of deltoid function was not to be expected. The essential thing is that the treatment should be immediate. In an acute case with one limb affected he would immobilise the other three limbs.

M. D. EDER.

Diphtheria in Berlin (*Arch. f. Klin. Chir.*, Bd. 38, 1908, p. 535).—**E. Schultze**.—The diphtheria mortality at the Bethanien Hospital in Berlin between the years 1882-1893 ranged from 43·3 (1891) to 58·4 per cent. (1884); and the mortality of the tracheotomy cases from 63·5 (1891) to 74·3 per cent. (1889). Since the introduction of antitoxin there has been a very marked drop in the mortality, the general mortality being 12·12 and the mortality of the tracheotomy cases 30 per cent. in 1902. The prognosis of tracheotomy cases in children aged one year and under is still bad, being 65·38 per cent., but in the pre-antitoxin period it was 96·1 per cent. The low operation was performed as a rule. In seven cases considerable surgical emphysema developed, and in one case right empyema in which recovery took place after two and a half months.

J. D. ROLLESTON.

Abscess of lung due to wire nail in right bronchus (*Arch. of Pediat.*, 1909, p. 201).—**F. Huber** describes a case in a boy, aged $2\frac{1}{2}$ years, who had swallowed a nail eight months previously. The symptoms were paroxysmal cough and dyspnoea, purulent sputum, septic temperature, vomiting, and loss of flesh. An abscess of the right lung was diagnosed, and an exploratory operation was made without success. Subsequently X rays revealed a wire nail in the trachea and right bronchus. A low tracheotomy was performed by H. M. Silver and the nail was removed after a stay of eight months. Recovery was slow. Thirteen months after the operation there were physical signs of fibrosis of the upper and middle lobe with dilated bronchi, and clubbing of the fingers and toes.

J. D. ROLLESTON.

Ovarian cysts in childhood (*Pediatrics*, 1909, p. 144).—**H. W. Cheney**.—Of 126 cases of ovarian tumours in children collected by Howard Kelly 55 were cysts. The youngest case occurred in a child aged 4 months. Cheney's case was a girl, aged 16 years, who had menstruated regularly for two years. The abdominal enlargement, which was associated with few symptoms beyond discomfort and occasional pain, was regarded at first as due to an enlarged spleen, and was subjected to X-ray treatment without result. Subsequently the diagnosis of a tumour of one of the pelvic organs or a sacculated tuberculous peritonitis was made. Laparotomy was performed and a tumour weighing $9\frac{1}{2}$ lb. was removed, which proved to be a papillary cysto-adenoma originating in the left ovary.

J. D. ROLLESTON.

Treatment of tuberculosis of the spine (*Clev. Med. Journ.*, February, 1909).—**Lovett**, in reviewing the treatment of Pott's disease, compares the methods of recumbency and activity, and is of opinion that the latter is far less efficacious than the former. If ambulatory treatment must be used, it is best borne by cases with disease in the cervical and lumbar regions, and least well by those with the dorsal region affected. Plaster jackets are more efficient than braces when ambulatory treatment in the acute stage must be followed, while the reverse is the case in the convalescent stage. Recumbency is necessary in all cases in which there is pain, when abscesses are threatened or present, or when psoas contraction takes place; also in cases of paralysis, and when the general health fails. Psoas abscesses are to be treated by recumbency and traction on the affected limb until it is evident that absorption will not take place. The author's mortality in forty-nine cases operated upon was 25 per cent. in children under the age of five years and 50 per cent. between the ages of five and ten years. Living in the open air both by day and night is essential to stimulate the process of repair. Conservative methods are thus forcibly advocated.

T. R. WHIPHAM.

Gastro-enterostomy for spasm of the pylorus (*La gastro-entérostomie dans les spasmes du pylore*) (*Gaz. des Hôp.*, March, 1909, Nos. 31 and 32).—**Termier** gives here a historical review of this question. He relates a case in an adult where he performed the operation. The article is chiefly concerned with adult conditions. He concludes that one should never perform the operation so long as there is evidence of pyloric permeability, for in this case the new opening hardly functions.

ERNEST JONES (Toronto).

Review of Book.

THE CARE OF CHILDREN, FROM BABYHOOD TO ADOLESCENCE. By BERNARD MYERS, M.D., C.M., with a preface by GEORGE F. STILL, M.D., F.R.C.P. London: Henry Kimpton, 1910. Crown 8vo, pp. xiii + 176. 1s. 6d.; cloth, 2s. 6d.

THIS little book is written for the use of mothers and nurses, but very valuable hints may be found in it with which medical practitioners should be familiar. Dr. G. F. Still, in an interesting and instructive preface, does not praise the book too much when he says: "The volume Dr. Myers has written is full of sound common-sense instruction on just those points upon which mothers and nurses need information. . . . It is full of valuable information on the most practical details of child-life and child culture." The first two chapters deal very thoroughly with the preparations for the coming baby and its care from birth to six months, and the sections on natural and artificial feeding are clearly written and sound in their teaching. The author is greatly opposed to the use of barley-water in the milk mixture for infants, but in his view we cannot entirely agree. Chapter III deals with the care of children from six months to two years, and, although condensed, contains the essential information. Chapter IV deals with the child from two to twelve years, Chapter V with the teeth, Chapter VI with the clothing, Chapter VII with the diet, and Chapters VIII and IX with the physical and mental education of children. All these chapters are very clear in their instructions and contain valuable information. The description of the ideal nurseries in Chapter X is excellent, but it is impossible in the average household for the author's ideals to be attained, as he considers the ideal nurseries should "consist of the night nursery, day nursery, pantry, larder, bath-room, lavatory, and gymnasium." He also states that a good size for the day nursery is 30 feet long, 20 feet wide, and 15 feet high, and that the night nursery should be a little bigger than the day nursery. He, however, admits that such fine rooms can only rarely be obtained. The description of the nursery furniture, of the decorations of the rooms and other details of the nurseries, contains everything that can be desired. Chapter XI deals with the proper management of children, and Chapter XII with travelling at home and abroad. In Chapter XIII there is a description of many illnesses, deformities, and accidents, together with their treatment. The part dealing with accidents is very useful, but that dealing with illnesses and deformities can only be confusing to mothers and nurses, and contains many instructions as to treatment which only ought to be used under medical orders. The short descriptions of the symptoms of certain diseases which are given are quite superfluous and very misleading, for it is quite impossible, and not desirous, for parents and nurses to attempt a diagnosis for themselves. Chapter XIV deals with medicines and their mode of administration, and describes the method of making poultices, the application of fomentations, dry heat and cold, and the use of enemata. We have especially drawn attention to these few points about which we do not agree with the author, as we consider that the volume is the best of its kind that has been written, and because we can thoroughly recommend it as a trustworthy and valuable guide to mothers and nurses upon the care of children from babyhood to adolescence.